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State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME

MARINE RECREATIONAL FISHERIES STATISTICS SURVEY
FOR NORTHERN AND CENTRAL CALIFORNIA,
QUARTERLY REPORT NO.14,
OCTOBER TO DECEMBER, 1982

by

Konstantin A. Karpov

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ABSTRACT

Field intercept Marine Recreational Fisheries Statistics Survey (MRFSS) data for central and northern California, collected in October to December 1982, is presented in a data report format. Data in this quarterly report are subdivided into three categories: primarily by five geographical areas; secondarily by fishing modes and gear types within each area; and finally by catch definition for each area, mode, and gear type. Tables are presented for these categories, each with three sections: sampled effort, ranked catch, and catch-per-unit-effort (CPUE). Also, within each area, length-frequency histograms and tables are presented for select species.

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INTRODUCTION

The California Department of Fish and Game under contract to the National Marine Fisheries Service (NMFS) has participated in the Marine Recreational Fisheries Statistics Survey (MRFSS) from mid 1979 to the present. The survey was initiated to gather catch and effort statistics for marine recreational fisheries along the Pacific west coast.

Annual summaries of these statistics are being published elsewhere on a regional basis (Current Fisheries Statistics Numbers 8321, 8323, 8325, 8328 and 8393). In these summaries, California's data is divided into two regions, Del Norte to Monterey counties (northern region) and San Luis Obispo to San Diego counties (southern region).

Quarterly Report No.14 covers the period of October to December 1982. It supplements the federal annual summary for only the north-central region of California (Del Norte to San Luis Obispo counties). This region is divided into five areas (subregions) corresponding to historical ports.

METHODS

Catch and length data were collected by Department biologists intercepting anglers actively fishing or in the process of leaving a fishing site. Sampling methodology is described in part in Current Fisheries Statistics (8321, 8323, 8325, 8328, and 8393).

Data in this quarterly report are subdivided into three categories: primarily by five geographical areas; secondarily by fishing modes and gear types within each area; and finally by catch definition for each area, mode, and gear type. Tables are presented for these categories, each with three

sections: sampled effort, ranked catch, and catch-per-unit-effort (CPUE). Also, within each area, length-frequency histograms and tables are presented for select species.

Study Areas

Study areas range in size from one county in Area 5 to seven counties in Area 3 (Figure 1). Adjacent counties are combined whenever similarity of habitat and species composition warrants. Boat modes are segregated by county only if separate grounds were fished (i.e. Sonoma County Bodega Bay fishery, sub-area 097, from Mendocino County, sub-area 045).

Area 1, including Del Norte and Humbolt counties, extends from the Oregon border to Shelter Cove. Both counties are combined in all mode comparisons. Area 2 contains Mendocino County and that part of Sonoma County which is north of Bodega Bay. Both counties are combined for all modes except the boat modes (private/rental boat and CPFV). The San Francisco Area 3 is segregated into ocean and bay. This area includes anglers from seven counties; Marin, Solano, Contra Costa, Santa Clara, Alameda, San Francisco, and San Mateo. These counties encircle the bay and extend down to Ano Nuevo. Two sets of tables and figures were generated based on whether anglers specified having fished in the ocean or the bay. Bay anglers were predominantly from San Francisco Bay, but also included a small percentage of Halfmoon Bay anglers. Area 4 includes Santa Cruz County and that part of Monterey County which is north of Ragged Point. Area 5, San Luis Obispo County, extends down to Point Sal.

Fishing Modes

Modes of fishing were organized into six categories: (i) pier or dock, (ii) jetty or breakwater, (iii) bridge or causeway, (iv) beach or bank, (v) private or rental boat, and (vi) commercial passenger fishing vessel (CPFV).

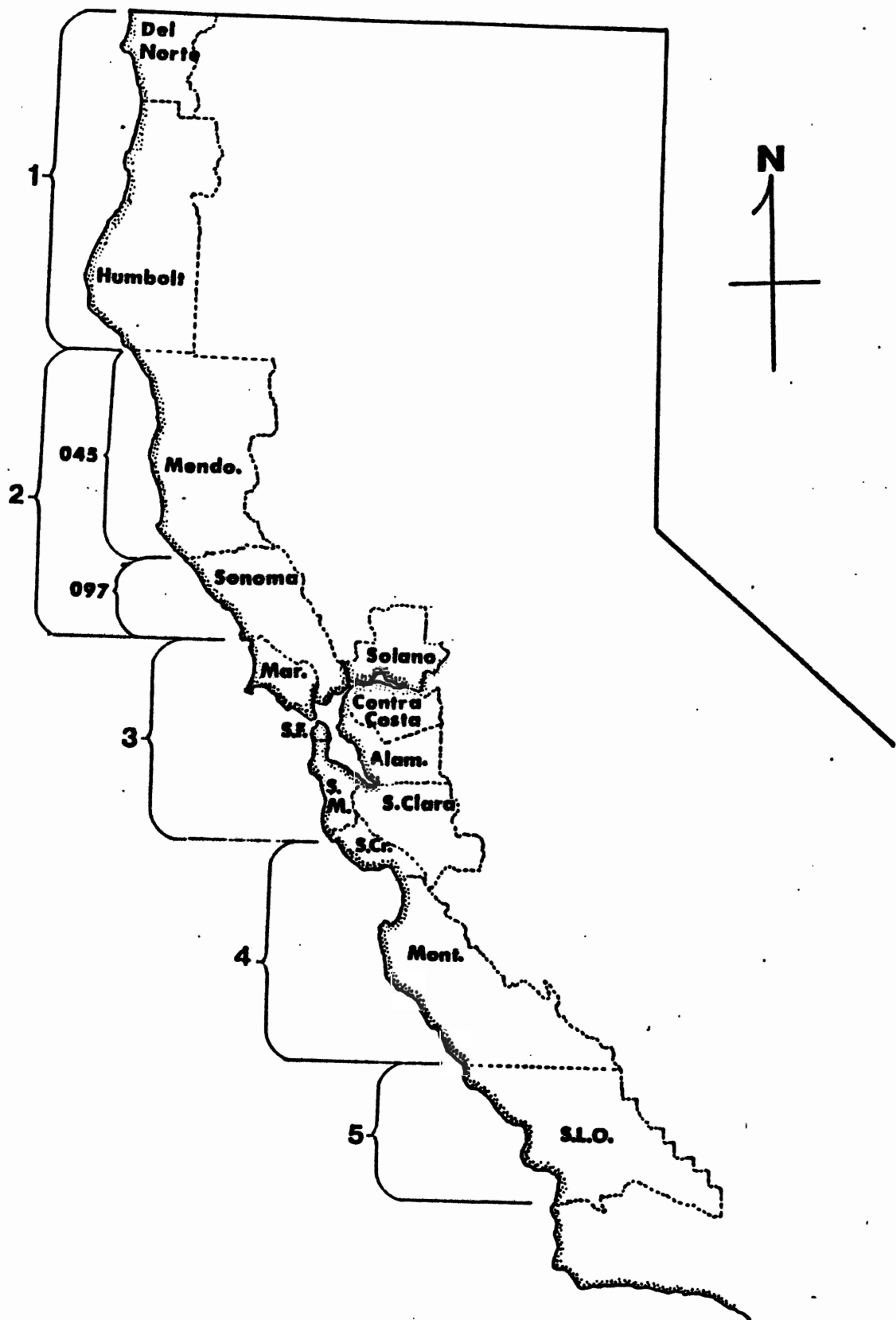


FIGURE 1. Study area counties and sub-areas in northern and central California.

Gear Types

Three types of gear were used; (i) hook-and-line, (ii) spear, or (iii) net. Spears were used only by divers. Dipnet and castnet were the only net gears in active use in northern and central California.

Catch Definition

Catch is defined three different ways: (i) all fish captured, including fish returned dead or alive, those not available at the sampling site (i.e. filleted or given away, etc.), and those available to measure; (ii) landed catch, not including fish returned dead or alive; and (iii) the measured catch only. Fish caught but unavailable to measure were identified to the nearest taxa using the angler's description.

Computer-Generated Tables and Figures

The Microcomputer Program Series (MPS) was developed to generate the tables and figures used in this report. The programs were designed for flexibility and ease of use on area microcomputers. The programs allow the user to generate tables and figures for any combination of area, mode, gear, or definition of catch. Data generated by these programs include: sampled effort, ranked catch, CPUE, and length-frequency data. Documentation of logic and program listings are available (Karpov, 1984).

Sampled Effort

Sampled effort is the same for all three catch definitions for a particular area, mode, or gear. It includes the number of anglers intercepted, the total hours fishing effort, and total hours still to be fished for incomplete trips.

Ranked Catch

Ranked catch includes rank of species caught by number or weight, and other statistics depending on the catch definition. Fish are ranked by

number caught in two of the catch definitions: all fish caught, and landed catch. The measured catch has fish ranked by weight caught. The measured catch tables include average lengths and standard deviation, and derived average weight.

CPUE

CPUE is calculated using two definitions of both "catch" and "effort". Catch is either number or weight (kilograms) caught. Effort is either angler days or total hours fished. CPUE, computed using weight caught as opposed to number landed, is included only for two of the catch definitions: landed catch and measured catch. Average weights incorporated in the landed catch tables are derived either from the respective measured catch table for the same species or, for the more general species groups, by calculating a group average weight. Group average weights of constituent species were calculated from this quarter's data for the same mode, gear, and area. Angler days represent completed fishing days for most areas and modes. Occasional incomplete trips were included for all modes except boat modes.

Length-Frequency Data

Length-frequency histograms and tables were generated for select species. Histograms are included for highly abundant species where at least 10 measured fish occurred in the most frequent size interval. Histograms were summarized in either 5-, 10-, or 20-mm intervals. The criteria for assigning summary intervals was based on the largest recorded size for the species as reported in Miller and Lea (1972). Fish reported from 0 to 12 inches used 5-mm, greater than 12 to 24 inches used 10-mm and greater than 24 inches were assigned 20-mm intervals.

Length-frequency tables (see Appendix A) were generated for all species with at least five measured fish for any given area, mode, and gear. Tables were summarized in 5-mm intervals and include length statistics for possible use in ANOVA computations (Sokal and Rohlf, 1969).

Species Names and Length-Weight Parameters

Total length was recorded for all species except tuna-like fishes with rigid concave caudal fins; for these fork lengths were used. Weights were not actually measured; rather, they were determined, for all major species taken, from precalculated length-weight relationships. The exponential relationship used was $W=aL^b$; where a and b are constants unique to each species (Appendix B).

Throughout this quarter, samplers working from San Mateo through Sonoma counties (area 3 and sub-area 097) inadvertently recorded fork lengths for all species measured. All species with moderately convex to concave caudal fins were converted back to total length using fork-total length relationships from several sources (Echeverria and Lenarz 1986, Karpov In press, and Van Hyning 1951). The linear relationship used was $TL=a+b(FL)$; where a and b are constants unique to each species (Appendix C).

Scientific and common names used were standardized using the American Fisheries Society list (1980).

Table 1. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 35 |
| Total Hours Effort for Anglers Intercepted | = | 92.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-----------------|-------------------|------------------|----------------|
| Perch, Shiner | 1 | 48 | 96.0 |
| Sharks | 2 | 1 | 2.0 |
| Seaperch, White | 3 | 1 | 2.0 |
| Total | | 50 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.43 | Catch per Angler Hour | = | 0.54 |
|----------------------|---|------|-----------------------|---|------|

Table 2. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 35 |
| Total Hours Effort for Anglers Intercepted | = | 92.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt.(kg)* | Weight Caught |
|---------------|-------------------|------------------|----------------|------------------|------------------|
| Perch, Shiner | 1 | 48 | 98.0 | 0.09 | 4.47 |
| Sharks | 2 | 1 | 2.0 | 0.00** | 0.00 |
| Total | | 49 | 100 | | 4.47 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.40 | Catch per Angler Hour | = | 0.53 |
| Kg per Angler Day | = | 0.13 | Kg per Angler Hour | = | 0.05 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 3. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 35
 Total Hours Effort for Anglers Intercepted = 92.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|---------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Perch, Shiner | 1 | 1.77 | 19 | 95.0 | 6 | 0.09 | 187 | 10 |
| Sharks | 2 | 0.00 | 1 | 5.0 | 0 | 0.00 | 0 | 0 |
| Total | | 1.77 | 20 | 100 | 6 | | | |

C. CPUE***

Catch per Angler Day = 0.57 Catch per Angler Hour = 0.22
 Kg per Angler Day = 0.05 Kg per Angler Hour = 0.02

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 4. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 95 |
| Total Hours Effort for Anglers Intercepted | = | 230.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|--------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 43 | 47.3 |
| Greenling, Kelp | 2 | 20 | 22.0 |
| Rockfish, Black | 3 | 14 | 15.4 |
| Seaperch, Striped | 4 | 7 | 7.7 |
| Cabazon | 5 | 3 | 3.3 |
| Surfperch, Redtail | 6 | 2 | 2.2 |
| Rockfish, Grass | 7 | 1 | 1.1 |
| Greenling, Rock | 8 | 1 | 1.1 |
| Total | | 91 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.96 | Catch per Angler Hour | = | 0.40 |
|----------------------|---|------|-----------------------|---|------|

Table 5. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 95
 Total Hours Effort for Anglers Intercepted = 230.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 22 | 40.7 | 0.19 | 4.29 |
| Greenling, Kelp | 2 | 14 | 25.9 | 0.32 | 4.43 |
| Seaperch, Striped | 3 | 7 | 13.0 | 0.25 | 1.76 |
| Rockfish, Black | 4 | 6 | 11.1 | 0.42 | 2.51 |
| Surfperch, Redtail | 5 | 2 | 3.7 | 0.39 | 0.78 |
| Rockfish, Grass | 6 | 1 | 1.9 | 1.99 | 1.99 |
| Greenling, Rock | 7 | 1 | 1.9 | 0.25 | 0.25 |
| Cabazon | 8 | 1 | 1.9 | 0.99 | 0.99 |
| Total | | 54 | 100 | | 17.01 |

C. CPUE

Catch per Angler Day = 0.57 Catch per Angler Hour = 0.23
 Kg per Angler Day = 0.18 Kg per Angler Hour = 0.07

* Weight estimated from length-to-weight regression if available.

Table 6. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 95
 Total Hours Effort for Anglers Intercepted = 230.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Greenling, Kelp | 1 | 4.43 | 14 | 25.9 | 14 | 0.32 | 277 | 36 |
| Rockfish, Blue | 2 | 4.29 | 22 | 40.7 | 16 | 0.19 | 224 | 49 |
| Rockfish, Black | 3 | 2.51 | 6 | 11.1 | 6 | 0.42 | 292 | 62 |
| Rockfish, Grass | 4 | 1.99 | 1 | 1.9 | 1 | 1.99 | 436 | 0 |
| Seaperch, Striped | 5 | 1.76 | 7 | 13.0 | 7 | 0.25 | 246 | 29 |
| Cabazon | 6 | 0.99 | 1 | 1.9 | 1 | 0.99 | 390 | 0 |
| Surfperch, Redtail | 7 | 0.78 | 2 | 3.7 | 2 | 0.39 | 285 | 11 |
| Greenling, Rock | 8 | 0.25 | 1 | 1.9 | 1 | 0.25 | 260 | 0 |
| Total | | 17.01 | 54 | 100 | 48 | | | |

C. CPUE***

Catch per Angler Day = 0.57 Catch per Angler Hour = 0.23
 Kg per Angler Day = 0.18 Kg per Angler Hour = 0.07

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 7. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 108
 Total Hours Effort for Anglers Intercepted = 283.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Smelt, Surf | 1 | 46 | 38.3 |
| Surfperch, Redtail | 2 | 44 | 36.7 |
| Trout, Rainbow | 3 | 13 | 10.8 |
| Greenling, Kelp | 4 | 6 | 5.0 |
| Seaperch, Striped | 5 | 4 | 3.3 |
| Rockfish, Black | 6 | 2 | 1.7 |
| Lingcod | 7 | 2 | 1.7 |
| Greenling, Rock | 8 | 1 | 0.8 |
| Sculpin, Pacific Staghorn | 9 | 1 | 0.8 |
| Seaperch, White | 10 | 1 | 0.8 |
| Total | | 120 | 100 |

C. CPUE

Catch per Angler Day = 1.11 Catch per Angler Hour = 0.42

Table 8. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 108
 Total Hours Effort for Anglers Intercepted = 283.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Smelt, Surf | 1 | 46 | 46.0 | 0.04 | 1.65 |
| Surfperch, Redtail | 2 | 34 | 34.0 | 0.60 | 20.41 |
| Trout, Rainbow | 3 | 9 | 9.0 | 0.93 | 8.40 |
| Greenling, Kelp | 4 | 3 | 3.0 | 0.30 | 0.91 |
| Seaperch, Striped | 5 | 3 | 3.0 | 0.65 | 1.96 |
| Rockfish, Black | 6 | 2 | 2.0 | 1.27 | 2.54 |
| Lingcod | 7 | 2 | 2.0 | 3.13 | 6.27 |
| Seaperch, White | 8 | 1 | 1.0 | 0.26 | 0.26 |
| Total | | 100 | 100 | | 42.39 |

C. CPUE

Catch per Angler Day = 0.93 Catch per Angler Hour = 0.35
 Kg per Angler Day = 0.39 Kg per Angler Hour = 0.15

* Weight estimated from length-to-weight regression if available.

Table 9. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 108
 Total Hours Effort for Anglers Intercepted = 283.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Surfperch, Redtail | 1 | 20.41 | 34 | 46.6 | 21 | 0.60 | 322 | 33 |
| Trout, Rainbow | 2 | 8.40 | 9 | 12.3 | 9 | 0.93 | 396 | 177 |
| Lingcod | 3 | 6.27 | 2 | 2.7 | 2 | 3.13 | 659 | 59 |
| Rockfish, Black | 4 | 2.54 | 2 | 2.7 | 2 | 1.27 | 435 | 69 |
| Seaperch, Striped | 5 | 1.96 | 3 | 4.1 | 3 | 0.65 | 341 | 19 |
| Smelt, Surf | 6 | 0.75 | 21 | 28.8 | 10 | 0.04 | 177 | 7 |
| Greenling, Kelp | 7 | 0.30 | 1 | 1.4 | 1 | 0.30 | 277 | 0 |
| Seaperch, White | 8 | 0.26 | 1 | 1.4 | 1 | 0.26 | 277 | 0 |
| Total | | 40.89 | 73 | 100 | 49 | | | |

C. CPUE***

Catch per Angler Day = 0.68 Catch per Angler Hour = 0.26
 Kg per Angler Day = 0.38 Kg per Angler Hour = 0.14

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 10. Sampled Effort, Ranked Catch and CPUE for Area 1
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents All Fish Captured,
Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 49
Total Hours Effort for Anglers Intercepted = 183.5
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-------------------|-------------------|------------------|----------------|
| Trout, Rainbow | 1 | 2 | 50.0 |
| Cabezon | 2 | 1 | 25.0 |
| Sanddab, Speckled | 3 | 1 | 25.0 |
| Total | | 4 | 100 |

C. CPUE

Catch per Angler Day = 0.08 Catch per Angler Hour = 0.02

Table 11. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 49
 Total Hours Effort for Anglers Intercepted = 183.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|----------------|-------------------|------------------|----------------|-------------------|------------------|
| Trout, Rainbow | 1 | 2 | %100.0 | 3.04 | 6.09 |
| Total | | 2 | 100 | | 6.09 |

C. CPUE

Catch per Angler Day = 0.04 Catch per Angler Hour = 0.01
 Kg per Angler Day = 0.12 Kg per Angler Hour = 0.03

* Weight estimated from length-to-weight regression if available.

Table 12. Sampled Effort, Ranked Catch and CPUE for Area 1
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents Only the Fish
Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 49
Total Hours Effort for Anglers Intercepted = 183.5
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|----------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Trout, Rainbow | 1 | 6.09 | 2 | %100.0 | 2 | 3.04 | 635 | 249 |
| Total | | 6.09 | 2 | 100 | 2 | | | |

C. CPUE***

Catch per Angler Day = 0.04 Catch per Angler Hour = 0.01
Kg per Angler Day = 0.12 Kg per Angler Hour = 0.03

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 13. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 9 |
| Total Hours Effort for Anglers Intercepted | = | 17.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 2.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-----------------|-------------------|------------------|----------------|
| Perch, Shiner | 1 | 7 | 63.6 |
| Rockfish, Grass | 2 | 1 | 9.1 |
| Greenling, Kelp | 3 | 1 | 9.1 |
| Cabazon | 4 | 1 | 9.1 |
| Seaperch, White | 5 | 1 | 9.1 |
| Total | | 11 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.22 | Catch per Angler Hour | = | 0.65 |
|----------------------|---|------|-----------------------|---|------|

Table 14. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 9
 Total Hours Effort for Anglers Intercepted = 17.0
 Total Hours Still to Fish (Incomplete Trips) = 2.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-----------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Grass | 1 | 1 | 20.0 | 1.61 | 1.61 |
| Greenling, Kelp | 2 | 1 | 20.0 | 0.35 | 0.35 |
| Cabazon | 3 | 1 | 20.0 | 2.16 | 2.16 |
| Perch, Shiner | 4 | 1 | 20.0 | 0.05 | 0.05 |
| Seaperch, White | 5 | 1 | 20.0 | 0.00** | 0.00 |
| Total | | 5 | 100 | | 4.16 |

C. CPUE

Catch per Angler Day = 0.56 Catch per Angler Hour = 0.29
 Kg per Angler Day = 0.46 Kg per Angler Hour = 0.24

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 15. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 9
 Total Hours Effort for Anglers Intercepted = 17.0
 Total Hours Still to Fish (Incomplete Trips) = 2.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-----------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Cabazon | 1 | 2.16 | 1 | 20.0 | 1 | 2.16 | 520 | 0 |
| Rockfish, Grass | 2 | 1.61 | 1 | 20.0 | 1 | 1.61 | 408 | 0 |
| Greenling, Kelp | 3 | 0.35 | 1 | 20.0 | 1 | 0.35 | 290 | 0 |
| Perch, Shiner | 4 | 0.05 | 1 | 20.0 | 1 | 0.05 | 153 | 0 |
| Seaperch, White | 5 | 0.00 | 1 | 20.0 | 0 | 0.00 | 0 | 0 |
| Total | | 4.16 | 5 | 100 | 4 | | | |

C. CPUE***

Catch per Angler Day = 0.56 Catch per Angler Hour = 0.29
 Kg per Angler Day = 0.46 Kg per Angler Hour = 0.24

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 16. Sampled Effort, Ranked Catch and CPUE for Area 2
in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using
Hook-and-Line Gear. Catch Represents All Fish Captured,
Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 55
Total Hours Effort for Anglers Intercepted = 129.5
Total Hours Still to Fish (Incomplete Trips) = 18.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------|-------------------|------------------|----------------|
| Cabezon | 1 | 4 | 80.0 |
| Unidentified Fishes | 2 | 1 | 20.0 |
| Total | | 5 | 100 |

C. CPUE

Catch per Angler Day = 0.09 Catch per Angler Hour = 0.04

Table 17. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 55
 Total Hours Effort for Anglers Intercepted = 129.5
 Total Hours Still to Fish (Incomplete Trips) = 18.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-------------|-------------------|------------------|----------------|-------------------|------------------|
| Total | | 0 | 0 | | 0.00 |

C. CPUE

Catch per Angler Day = 0.00 Catch per Angler Hour = 0.00
 Kg per Angler Day = 0.00 Kg per Angler Hour = 0.00

* Weight estimated from length-to-weight regression if available.

Table 18. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 55
 Total Hours Effort for Anglers Intercepted = 129.5
 Total Hours Still to Fish (Incomplete Trips) = 18.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Total | | 0.00 | 0 | 0 | 0 | | | |

C. CPUE***

Catch per Angler Day = 0.00 Catch per Angler Hour = 0.00
 Kg per Angler Day = 0.00 Kg per Angler Hour = 0.00

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 19. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 73 |
| Total Hours Effort for Anglers Intercepted | = | 182.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 14.1 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------|-------------------|------------------|----------------|
| Unidentified Fishes | 1 | 12 | 23.1 |
| Greenling, Kelp | 2 | 11 | 21.2 |
| Seaperch, Striped | 3 | 7 | 13.5 |
| Greenling, Rock | 4 | 4 | 7.7 |
| Rockfish, Blue | 5 | 3 | 5.8 |
| Cabazon | 6 | 3 | 5.8 |
| Surfperch, Silver | 7 | 3 | 5.8 |
| Sole, Sand | 8 | 2 | 3.8 |
| Lingcod | 9 | 1 | 1.9 |
| Sculpins | 10 | 1 | 1.9 |
| Surfperches | 11 | 1 | 1.9 |
| Seaperch, White | 12 | 1 | 1.9 |
| Surfperch, Barred | 13 | 1 | 1.9 |
| Sole, Rock | 14 | 1 | 1.9 |
| Flounder, Starry | 15 | 1 | 1.9 |
| Total | | 52 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.71 | Catch per Angler Hour | = | 0.29 |
|----------------------|---|------|-----------------------|---|------|

Table 20. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 73
 Total Hours Effort for Anglers Intercepted = 182.0
 Total Hours Still to Fish (Incomplete Trips) = 14.1

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-------------------|-------------------|------------------|----------------|-------------------|------------------|
| Seaperch, Striped | 1 | 7 | 23.3 | 0.42 | 2.94 |
| Greenling, Kelp | 2 | 4 | 13.3 | 0.29 | 1.16 |
| Greenling, Rock | 3 | 4 | 13.3 | 0.28 | 1.13 |
| Cabazon | 4 | 3 | 10.0 | 1.23 | 3.70 |
| Surfperch, Silver | 5 | 3 | 10.0 | 0.13 | 0.38 |
| Rockfish, Blue | 6 | 2 | 6.7 | 0.33 | 0.66 |
| Sole, Sand | 7 | 2 | 6.7 | 0.26 | 0.51 |
| Lingcod | 8 | 1 | 3.3 | 2.12 | 2.12 |
| Seaperch, White | 9 | 1 | 3.3 | 0.26 | 0.26 |
| Surfperch, Barred | 10 | 1 | 3.3 | 0.27 | 0.27 |
| Sole, Rock | 11 | 1 | 3.3 | 0.10 | 0.10 |
| Flounder, Starry | 12 | 1 | 3.3 | 0.16 | 0.16 |
| Total | | 30 | 100 | | 13.39 |

C. CPUE

Catch per Angler Day = 0.41 Catch per Angler Hour = 0.16
 Kg per Angler Day = 0.18 Kg per Angler Hour = 0.07

* Weight estimated from length-to-weight regression if available.

Table 21. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 73
 Total Hours Effort for Anglers Intercepted = 182.0
 Total Hours Still to Fish (Incomplete Trips) = 14.1

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Cabazon | 1 | 3.70 | 3 | 10.0 | 3 | 1.23 | 402 | 128 |
| Seaperch, Striped | 2 | 2.94 | 7 | 23.3 | 7 | 0.42 | 292 | 34 |
| Lingcod | 3 | 2.12 | 1 | 3.3 | 1 | 2.12 | 580 | 0 |
| Greenling, Kelp | 4 | 1.16 | 4 | 13.3 | 4 | 0.29 | 266 | 49 |
| Greenling, Rock | 5 | 1.13 | 4 | 13.3 | 4 | 0.28 | 258 | 70 |
| Rockfish, Blue | 6 | 0.66 | 2 | 6.7 | 2 | 0.33 | 254 | 119 |
| Sole, Sand | 7 | 0.51 | 2 | 6.7 | 2 | 0.26 | 264 | 74 |
| Surfperch, Silver | 8 | 0.38 | 3 | 10.0 | 3 | 0.13 | 200 | 11 |
| Surfperch, Barred | 9 | 0.27 | 1 | 3.3 | 1 | 0.27 | 243 | 0 |
| Seaperch, White | 10 | 0.26 | 1 | 3.3 | 1 | 0.26 | 278 | 0 |
| Flounder, Starry | 11 | 0.16 | 1 | 3.3 | 1 | 0.16 | 246 | 0 |
| Sole, Rock | 12 | 0.10 | 1 | 3.3 | 1 | 0.10 | 201 | 0 |
| Total | | 13.39 | 30 | 100 | 30 | | | |

C. CPUE***

Catch per Angler Day = 0.41 Catch per Angler Hour = 0.16
 Kg per Angler Day = 0.18 Kg per Angler Hour = 0.07

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 22. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Spear Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-----|
| Number Anglers Intercepted | = | 6 |
| Total Hours Effort for Anglers Intercepted | = | 6.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Cabazon | 1 | 3 | 42.9 |
| Rockfish, Black | 2 | 2 | 28.6 |
| Greenlings (unidentified) | 3 | 1 | 14.3 |
| Greenling, Kelp | 4 | 1 | 14.3 |
| Total | | 7 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.17 | Catch per Angler Hour | = | 1.08 |
|----------------------|---|------|-----------------------|---|------|

Table 23. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Spear Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 6
 Total Hours Effort for Anglers Intercepted = 6.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-----------------|-------------------|------------------|----------------|-------------------|------------------|
| Cabazon | 1 | 3 | 50.0 | 1.15 | 3.44 |
| Rockfish, Black | 2 | 2 | 33.3 | 1.64 | 3.28 |
| Greenling, Kelp | 3 | 1 | 16.7 | 1.05 | 1.05 |
| Total | | 6 | 100 | | 7.77 |

C. CPUE

Catch per Angler Day = 1.00 Catch per Angler Hour = 0.92
 Kg per Angler Day = 1.30 Kg per Angler Hour = 1.20

* Weight estimated from length-to-weight regression if available.

Table 24. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 4, by Beach or Bank Anglers Using Spear Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 6
 Total Hours Effort for Anglers Intercepted = 6.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-----------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Cabezon | 1 | 3.44 | 3 | 50.0 | 3 | 1.15 | 406 | 65 |
| Rockfish, Black | 2 | 3.28 | 2 | 33.3 | 2 | 1.64 | 450 | 170 |
| Greenling, Kelp | 3 | 1.05 | 1 | 16.7 | 1 | 1.05 | 426 | 0 |
| Total | | 7.77 | 6 | 100 | 6 | | | |

C. CPUE***

Catch per Angler Day = 1.00 Catch per Angler Hour = 0.92
 Kg per Angler Day = 1.30 Kg per Angler Hour = 1.20

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 25. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 86 |
| Total Hours Effort for Anglers Intercepted | = | 362.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 230 | 47.6 |
| Lingcod | 2 | 65 | 13.5 |
| Rockfish, Canary | 3 | 48 | 9.9 |
| Rockfish, Black | 4 | 45 | 9.3 |
| Sanddab, Pacific | 5 | 32 | 6.6 |
| Rockfishes (unidentified) | 6 | 10 | 2.1 |
| Rockfish, Yellowtail | 7 | 10 | 2.1 |
| Rockfish, Rosy | 8 | 7 | 1.4 |
| Mackerel, Pacific (Chub) | 9 | 7 | 1.4 |
| Rockfish, Copper | 10 | 5 | 1.0 |
| Cabezon | 11 | 5 | 1.0 |
| Rockfish, Vermilion | 12 | 4 | 0.8 |
| Rockfish, China | 13 | 4 | 0.8 |
| Greenling, Kelp | 14 | 3 | 0.6 |
| Rockfish, Yelloweye | 15 | 2 | 0.4 |
| Sole, Rock | 16 | 2 | 0.4 |
| Salmon, Chinook (King) | 17 | 1 | 0.2 |
| Rockfish, Quillback | 18 | 1 | 0.2 |
| Rockfish, Grass | 19 | 1 | 0.2 |
| Sculpin, Buffalo | 20 | 1 | 0.2 |
| Total | | 483 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 5.62 | Catch per Angler Hour | = | 1.33 |
|----------------------|---|------|-----------------------|---|------|

Table 26. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 86 |
| Total Hours Effort for Anglers Intercepted | = | 362.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 204 | 45.5 | 0.67 | 137.66 |
| Lingcod | 2 | 65 | 14.5 | 3.69 | 240.15 |
| Rockfish, Canary | 3 | 48 | 10.7 | 0.57 | 27.13 |
| Rockfish, Black | 4 | 45 | 10.0 | 0.92 | 41.23 |
| Sanddab, Pacific | 5 | 32 | 7.1 | 0.17 | 5.59 |
| Rockfish, Yellowtail | 6 | 10 | 2.2 | 0.95 | 9.52 |
| Rockfish, Rosy | 7 | 7 | 1.6 | 0.43 | 3.04 |
| Mackerel, Pacific (Chub) | 8 | 7 | 1.6 | 0.30 | 2.07 |
| Rockfish, Copper | 9 | 5 | 1.1 | 1.66 | 8.29 |
| Cabezon | 10 | 5 | 1.1 | 2.08 | 10.42 |
| Rockfish, Vermilion | 11 | 4 | 0.9 | 2.62 | 10.46 |
| Rockfish, China | 12 | 4 | 0.9 | 0.91 | 3.65 |
| Greenling, Kelp | 13 | 3 | 0.7 | 0.85 | 2.54 |
| Rockfishes (unidentified) | 14 | 2 | 0.4 | 0.75** | 1.50 |
| Rockfish, Yelloweye | 15 | 2 | 0.4 | 1.81 | 3.62 |
| Sole, Rock | 16 | 2 | 0.4 | 0.70 | 1.40 |
| Salmon, Chinook (King) | 17 | 1 | 0.2 | 0.70 | 0.70 |
| Rockfish, Quillback | 18 | 1 | 0.2 | 2.23 | 2.23 |
| Rockfish, Grass | 19 | 1 | 0.2 | 1.74 | 1.74 |
| Total | | 448 | 100 | | 512.94 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 5.21 | Catch per Angler Hour | = | 1.24 |
| Kg per Angler Day | = | 5.96 | Kg per Angler Hour | = | 1.42 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 27. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 86
 Total Hours Effort for Anglers Intercepted = 362.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Lingcod | 1 | 240.15 | 65 | 14.6 | 61 | 3.69 | 684 | 102 |
| Rockfish, Blue | 2 | 137.66 | 204 | 45.8 | 114 | 0.67 | 347 | 49 |
| Rockfish, Black | 3 | 41.23 | 45 | 10.1 | 39 | 0.92 | 384 | 63 |
| Rockfish, Canary | 4 | 27.13 | 48 | 10.8 | 46 | 0.57 | 330 | 53 |
| Rockfish, Vermilion | 5 | 10.46 | 4 | 0.9 | 4 | 2.62 | 544 | 66 |
| Cabazon | 6 | 10.42 | 5 | 1.1 | 5 | 2.08 | 498 | 108 |
| Rockfish, Yellowtail | 7 | 9.52 | 10 | 2.2 | 10 | 0.95 | 388 | 85 |
| Rockfish, Copper | 8 | 8.29 | 5 | 1.1 | 4 | 1.66 | 445 | 45 |
| Sanddab, Pacific | 9 | 5.41 | 31 | 7.0 | 23 | 0.17 | 246 | 33 |
| Rockfish, China | 10 | 3.65 | 4 | 0.9 | 3 | 0.91 | 360 | 45 |
| Rockfish, Yelloweye | 11 | 3.62 | 2 | 0.4 | 2 | 1.81 | 443 | 126 |
| Rockfish, Rosy | 12 | 3.04 | 7 | 1.6 | 7 | 0.43 | 299 | 12 |
| Greenling, Kelp | 13 | 2.54 | 3 | 0.7 | 3 | 0.85 | 394 | 22 |
| Rockfish, Quillback | 14 | 2.23 | 1 | 0.2 | 1 | 2.23 | 486 | 0 |
| Mackerel, Pacific (Chub) | 15 | 2.07 | 7 | 1.6 | 7 | 0.30 | 282 | 33 |
| Rockfish, Grass | 16 | 1.74 | 1 | 0.2 | 1 | 1.74 | 418 | 0 |
| Sole, Rock | 17 | 1.40 | 2 | 0.4 | 2 | 0.70 | 363 | 86 |
| Salmon, Chinook (King) | 18 | 0.70 | 1 | 0.2 | 1 | 0.70 | 420 | 0 |
| Total | | 511.26 | 445 | 100 | 333 | | | |

C. CPUE***

Catch per Angler Day = 5.17 Catch per Angler Hour = 1.23
 Kg per Angler Day = 5.94 Kg per Angler Hour = 1.41

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 28. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Spear Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 9 |
| Total Hours Effort for Anglers Intercepted | = | 16.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-----------------|-------------------|------------------|----------------|
| Greenling, Kelp | 1 | 48 | 67.6 |
| Lingcod | 2 | 10 | 14.1 |
| Rockfish, Black | 3 | 6 | 8.5 |
| Rockfish, Blue | 4 | 3 | 4.2 |
| Cabazon | 5 | 3 | 4.2 |
| Wolf-eel | 6 | 1 | 1.4 |
| Total | | 71 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 7.89 | Catch per Angler Hour | = | 4.30 |
|----------------------|---|------|-----------------------|---|------|

Table 29. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Spear Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 9
 Total Hours Effort for Anglers Intercepted = 16.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-----------------|-------------------|------------------|----------------|-------------------|------------------|
| Greenling, Kelp | 1 | 48 | 67.6 | 0.64 | 30.73 |
| Lingcod | 2 | 10 | 14.1 | 2.72 | 27.18 |
| Rockfish, Black | 3 | 6 | 8.5 | 1.15 | 6.90 |
| Rockfish, Blue | 4 | 3 | 4.2 | 0.66 | 1.99 |
| Cabezon | 5 | 3 | 4.2 | 1.53 | 4.60 |
| Wolf-eel | 6 | 1 | 1.4 | 1.40 | 1.40 |
| Total | | 71 | 100 | | 72.80 |

C. CPUE

Catch per Angler Day = 7.89 Catch per Angler Hour = 4.30
 Kg per Angler Day = 8.09 Kg per Angler Hour = 4.41

* Weight estimated from length-to-weight regression if available.

Table 30. Sampled Effort, Ranked Catch and CPUE for Area 045
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Spear Gear. Catch Represents Only the Fish
Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 9
Total Hours Effort for Anglers Intercepted = 16.5
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-----------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Greenling, Kelp | 1 | 30.73 | 48 | 67.6 | 21 | 0.64 | 358 | 14 |
| Lingcod | 2 | 27.18 | 10 | 14.1 | 10 | 2.72 | 625 | 63 |
| Rockfish, Black | 3 | 6.90 | 6 | 8.5 | 6 | 1.15 | 418 | 60 |
| Cabazon | 4 | 4.60 | 3 | 4.2 | 3 | 1.53 | 456 | 50 |
| Rockfish, Blue | 5 | 1.99 | 3 | 4.2 | 3 | 0.66 | 352 | 15 |
| Wolf-eel | 6 | 1.40 | 1 | 1.4 | 1 | 1.40 | 540 | 0 |
| Total | | 72.80 | 71 | 100 | 44 | | | |

C. CPUE***

Catch per Angler Day = 7.89 Catch per Angler Hour = 4.30
Kg per Angler Day = 8.09 Kg per Angler Hour = 4.41

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 31. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 15 |
| Total Hours Effort for Anglers Intercepted | = | 75.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|--------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 48 | 28.6 |
| Rockfish, Canary | 2 | 33 | 19.6 |
| Rockfish, Yellowtail | 3 | 22 | 13.1 |
| Rockfish, Black | 4 | 14 | 8.3 |
| Rockfish, Rosy | 5 | 14 | 8.3 |
| Mackerel, Pacific (Chub) | 6 | 13 | 7.7 |
| Lingcod | 7 | 11 | 6.5 |
| Rockfish, Copper | 8 | 3 | 1.8 |
| Rockfish, China | 9 | 3 | 1.8 |
| Bocaccio | 10 | 2 | 1.2 |
| Greenling, Kelp | 11 | 2 | 1.2 |
| Unidentified Fishes | 12 | 1 | 0.6 |
| Rockfish, Vermilion | 13 | 1 | 0.6 |
| Rockfish, Yelloweye | 14 | 1 | 0.6 |
| Total | | 168 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|-------|-----------------------|---|------|
| Catch per Angler Day | = | 11.20 | Catch per Angler Hour | = | 2.24 |
|----------------------|---|-------|-----------------------|---|------|

Table 32. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 15
 Total Hours Effort for Anglers Intercepted = 75.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 48 | 28.7 | 0.62 | 29.59 |
| Rockfish, Canary | 2 | 33 | 19.8 | 0.58 | 19.01 |
| Rockfish, Yellowtail | 3 | 22 | 13.2 | 0.53 | 11.66 |
| Rockfish, Black | 4 | 14 | 8.4 | 1.19 | 16.71 |
| Rockfish, Rosy | 5 | 14 | 8.4 | 0.40 | 5.56 |
| Mackerel, Pacific (Chub) | 6 | 13 | 7.8 | 0.38 | 4.97 |
| Lingcod | 7 | 11 | 6.6 | 5.01 | 55.06 |
| Rockfish, Copper | 8 | 3 | 1.8 | 1.70 | 5.10 |
| Rockfish, China | 9 | 3 | 1.8 | 0.70 | 2.09 |
| Bocaccio | 10 | 2 | 1.2 | 0.56 | 1.12 |
| Greenling, Kelp | 11 | 2 | 1.2 | 0.63 | 1.25 |
| Rockfish, Vermilion | 12 | 1 | 0.6 | 3.73 | 3.73 |
| Rockfish, Yelloweye | 13 | 1 | 0.6 | 0.30 | 0.30 |
| Total | | 167 | 100 | | 156.15 |

C. CPUE

Catch per Angler Day = 11.13 Catch per Angler Hour = 2.23
 Kg per Angler Day = 10.41 Kg per Angler Hour = 2.08

* Weight estimated from length-to-weight regression if available.

Table 33. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 15
 Total Hours Effort for Anglers Intercepted = 75.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Lingcod | 1 | 55.06 | 11 | 8.0 | 11 | 5.01 | 758 | 116 |
| Rockfish, Blue | 2 | 28.36 | 46 | 33.3 | 46 | 0.62 | 336 | 51 |
| Rockfish, Canary | 3 | 14.98 | 26 | 18.8 | 26 | 0.58 | 334 | 50 |
| Rockfish, Black | 4 | 10.74 | 9 | 6.5 | 9 | 1.19 | 425 | 51 |
| Rockfish, Yellowtail | 5 | 7.42 | 14 | 10.1 | 14 | 0.53 | 318 | 68 |
| Rockfish, Copper | 6 | 5.10 | 3 | 2.2 | 3 | 1.70 | 438 | 99 |
| Mackerel, Pacific (Chub) | 7 | 4.97 | 13 | 9.4 | 10 | 0.38 | 308 | 16 |
| Rockfish, Rosy | 8 | 4.37 | 11 | 8.0 | 10 | 0.40 | 289 | 18 |
| Rockfish, Vermilion | 9 | 3.73 | 1 | 0.7 | 1 | 3.73 | 620 | 0 |
| Rockfish, China | 10 | 0.70 | 1 | 0.7 | 1 | 0.70 | 335 | 0 |
| Greenling, Kelp | 11 | 0.63 | 1 | 0.7 | 1 | 0.63 | 356 | 0 |
| Bocaccio | 12 | 0.56 | 1 | 0.7 | 1 | 0.56 | 380 | 0 |
| Rockfish, Yelloweye | 13 | 0.30 | 1 | 0.7 | 1 | 0.30 | 256 | 0 |
| Total | | 136.91 | 138 | 100 | 134 | | | |

C. CPUE***

Catch per Angler Day = 9.20 Catch per Angler Hour = 1.84
 Kg per Angler Day = 9.13 Kg per Angler Hour = 1.83

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Figure 2. Length-Frequency Histogram for Blue Rockfish
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 045, Quarter 4, 1982.

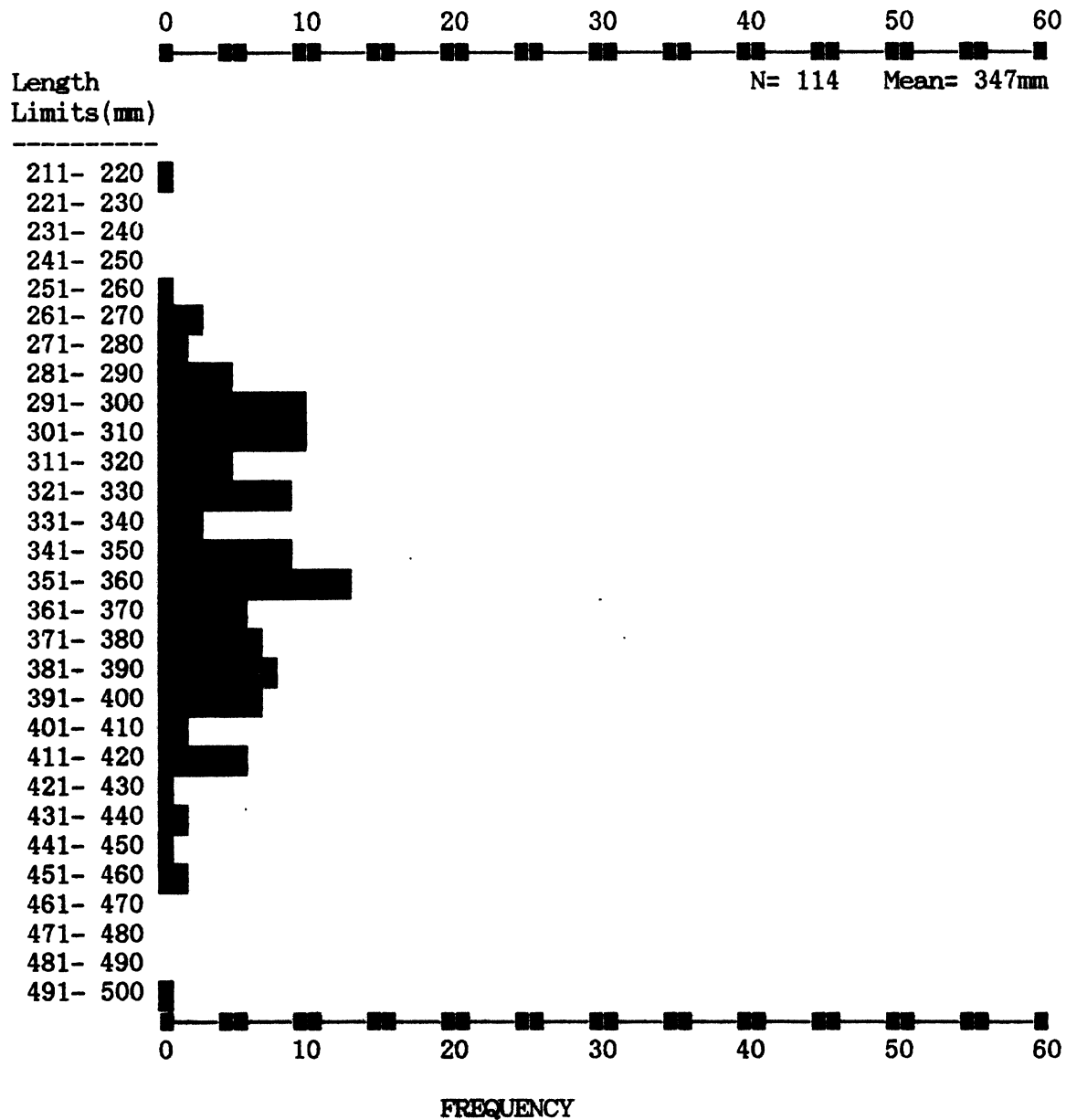


Figure 3. Length-Frequency Histogram for Canary Rockfish
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 045, Quarter 4, 1982.

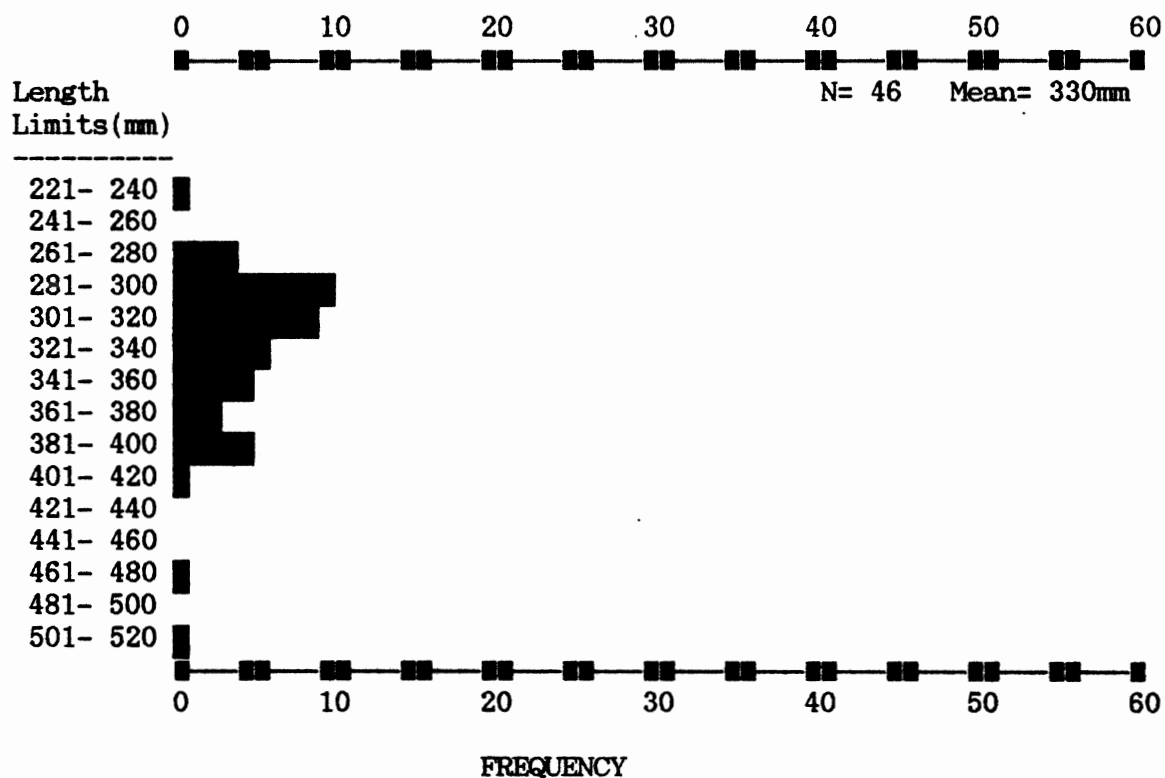


Table 34. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 44
 Total Hours Effort for Anglers Intercepted = 199.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Mackerel, Pacific (Chub) | 1 | 57 | 21.0 |
| Rockfish, Blue | 2 | 55 | 20.3 |
| Rockfishes (unidentified) | 3 | 54 | 19.9 |
| Surfperches | 4 | 40 | 14.8 |
| Rockfish, Copper | 5 | 15 | 5.5 |
| Rockfish, Yellowtail | 6 | 8 | 3.0 |
| Rockfish, Canary | 7 | 7 | 2.6 |
| Lingcod | 8 | 7 | 2.6 |
| Rockfish, Brown | 9 | 3 | 1.1 |
| Rockfish, China | 10 | 3 | 1.1 |
| Rockfish, Gopher | 11 | 3 | 1.1 |
| Flounders, Lefteye | 12 | 3 | 1.1 |
| Rockfish, Quillback | 13 | 2 | 0.7 |
| Rockfish, Black | 14 | 2 | 0.7 |
| Rockfish, Olive | 15 | 2 | 0.7 |
| Sculpin, Buffalo | 16 | 2 | 0.7 |
| Flounders, Righteye | 17 | 2 | 0.7 |
| Rockfish, Rosy | 18 | 1 | 0.4 |
| Greenling, Kelp | 19 | 1 | 0.4 |
| Sculpin, Pacific Staghorn | 20 | 1 | 0.4 |
| Cabezon | 21 | 1 | 0.4 |
| Halibut, California | 22 | 1 | 0.4 |
| Flounder, Starry | 23 | 1 | 0.4 |
| Total | | 271 | 100 |

C. CPUE

Catch per Angler Day = 6.16 Catch per Angler Hour = 1.36

Table 56. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 44
 Total Hours Effort for Anglers Intercepted = 199.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Mackerel, Pacific (Chub) | 1 | 57 | 2.69 | 0.52 | 29.42 |
| Rockfish, Blue | 2 | 55 | 25.9 | 0.51 | 28.67 |
| Rockfishes (unidentified) | 3 | 42 | 19.8 | 0.68** | 28.56 |
| Rockfish, Copper | 4 | 14 | 6.6 | 1.33 | 18.57 |
| Rockfish, Yellowtail | 5 | 8 | 3.3 | 0.90 | 7.24 |
| Rockfish, Canary | 6 | 7 | 2.9 | 0.52 | 3.61 |
| Lingcod | 7 | 6 | 2.5 | 5.58 | 33.46 |
| Rockfish, Brown | 8 | 3 | 1.4 | 0.57 | 1.70 |
| Rockfish, China | 9 | 3 | 1.4 | 0.95 | 2.86 |
| Rockfish, Gopher | 10 | 3 | 1.4 | 0.65 | 1.96 |
| Rockfish, Quillback | 11 | 2 | 0.9 | 0.82 | 1.65 |
| Rockfish, Black | 12 | 2 | 0.9 | 0.51 | 1.02 |
| Rockfish, Olive | 13 | 2 | 0.9 | 0.40 | 0.81 |
| Flounders, Righteye | 14 | 2 | 0.9 | 2.29** | 0.28 |
| Rockfish, Rosy | 15 | 1 | 0.5 | 0.34 | 0.34 |
| Greenling, Kelp | 16 | 1 | 0.5 | 0.58 | 0.58 |
| Sculpin, Buffalo | 17 | 1 | 0.5 | 0.16 | 0.16 |
| Cabazon | 18 | 1 | 0.5 | 2.65 | 2.65 |
| Halibut, California | 19 | 1 | 0.5 | 5.38 | 5.38 |
| Flounder, Starry | 20 | 1 | 0.5 | 2.29 | 2.29 |
| Total | | 212 | 100 | | 170.68 |

C. CPUE

Catch per Angler Day = 4.82 Catch per Angler Hour = 1.07
 Kg per Angler Day = 3.88 Kg per Angler Hour = 0.86

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 36. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 44
 Total Hours Effort for Anglers Intercepted = 199.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Lingcod | 1 | 33.46 | 6 | 3.5 | 6 | 5.58 | 784 | 127 |
| Mackerel, Pacific (Chub) | 2 | 29.42 | 57 | 33.5 | 20 | 0.52 | 335 | 26 |
| Rockfish, Blue | 3 | 28.15 | 55 | 32.4 | 37 | 0.51 | 311 | 64 |
| Rockfish, Copper | 4 | 18.57 | 14 | 8.2 | 14 | 1.33 | 403 | 77 |
| Rockfish, Yellowtail | 5 | 7.24 | 8 | 4.7 | 8 | 0.90 | 361 | 126 |
| Halibut, California | 6 | 5.38 | 1 | 0.6 | 1 | 5.38 | 798 | 0 |
| Rockfish, Canary | 7 | 3.61 | 7 | 4.1 | 7 | 0.52 | 324 | 41 |
| Rockfish, China | 8 | 2.86 | 3 | 1.8 | 3 | 0.95 | 368 | 27 |
| Cabazon | 9 | 2.65 | 1 | 0.6 | 1 | 2.65 | 561 | 0 |
| Flounder, Starry | 10 | 2.29 | 1 | 0.6 | 1 | 2.29 | 548 | 0 |
| Rockfish, Gopher | 11 | 1.96 | 3 | 1.8 | 3 | 0.65 | 343 | 30 |
| Rockfish, Brown | 12 | 1.70 | 3 | 1.8 | 3 | 0.57 | 314 | 43 |
| Rockfish, Quillback | 13 | 1.65 | 2 | 1.2 | 2 | 0.82 | 341 | 62 |
| Rockfish, Black | 14 | 1.02 | 2 | 1.2 | 2 | 0.51 | 322 | 25 |
| Rockfish, Olive | 15 | 0.81 | 2 | 1.2 | 2 | 0.40 | 316 | 28 |
| Greenling, Kelp | 16 | 0.58 | 1 | 0.6 | 1 | 0.58 | 347 | 0 |
| Rockfish, Rosy | 17 | 0.34 | 1 | 0.6 | 1 | 0.34 | 276 | 0 |
| Flounders, Righteye | 18 | 0.28 | 2 | 1.2 | 2 | 0.14 | 231 | 15 |
| Sculpin, Buffalo | 19 | 0.16 | 1 | 0.6 | 1 | 0.16 | 249 | 0 |
| Total | | 142.12 | 170 | 100 | 115 | | | |

C. CPUE***

Catch per Angler Day = 3.86 Catch per Angler Hour = 0.85
 Kg per Angler Day = 3.23 Kg per Angler Hour = 0.71

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 37. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 12 |
| Total Hours Effort for Anglers Intercepted | = | 84.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|----------------------|-------------------|------------------|----------------|
| Rockfish, Yellowtail | 1 | 58 | 64.4 |
| Rockfish, Olive | 2 | 15 | 16.7 |
| Rockfish, Rosy | 3 | 7 | 7.8 |
| Bocaccio | 4 | 4 | 4.4 |
| Rockfish, Widow | 5 | 1 | 1.1 |
| Rockfish, Vermilion | 6 | 1 | 1.1 |
| Rockfish, Blue | 7 | 1 | 1.1 |
| Rockfish, Canary | 8 | 1 | 1.1 |
| Rockfish, Yelloweye | 9 | 1 | 1.1 |
| Rockfish, Starry | 10 | 1 | 1.1 |
| Total | | 90 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 7.50 | Catch per Angler Hour | = | 1.07 |
|----------------------|---|------|-----------------------|---|------|

Table 38. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 12
 Total Hours Effort for Anglers Intercepted = 84.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|----------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Yellowtail | 1 | 58 | 64.4 | 1.09 | 63.14 |
| Rockfish, Olive | 2 | 15 | 16.7 | 1.21 | 18.11 |
| Rockfish, Rosy | 3 | 7 | 7.8 | 0.33 | 2.28 |
| Bocaccio | 4 | 4 | 4.4 | 1.40 | 5.58 |
| Rockfish, Widow | 5 | 1 | 1.1 | 1.92 | 1.92 |
| Rockfish, Vermilion | 6 | 1 | 1.1 | 2.55 | 2.55 |
| Rockfish, Blue | 7 | 1 | 1.1 | 0.95 | 0.95 |
| Rockfish, Canary | 8 | 1 | 1.1 | 2.09 | 2.09 |
| Rockfish, Yelloweye | 9 | 1 | 1.1 | 2.83 | 2.83 |
| Rockfish, Starry | 10 | 1 | 1.1 | 1.03 | 1.03 |
| Total | | 90 | 100 | | 100.47 |

C. CPUE

Catch per Angler Day = 7.50 Catch per Angler Hour = 1.07
 Kg per Angler Day = 8.37 Kg per Angler Hour = 1.20

* Weight estimated from length-to-weight regression if available.

Table 39. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 12
 Total Hours Effort for Anglers Intercepted = 84.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|----------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Yellowtail | 1 | 63.14 | 58 | 64.4 | 58 | 1.09 | 414 | 60 |
| Rockfish, Olive | 2 | 18.11 | 15 | 16.7 | 15 | 1.21 | 446 | 33 |
| Bocaccio | 3 | 5.58 | 4 | 4.4 | 4 | 1.40 | 502 | 76 |
| Rockfish, Yelloweye | 4 | 2.83 | 1 | 1.1 | 1 | 2.83 | 533 | 0 |
| Rockfish, Vermilion | 5 | 2.55 | 1 | 1.1 | 1 | 2.55 | 544 | 0 |
| Rockfish, Rosy | 6 | 2.28 | 7 | 7.8 | 5 | 0.33 | 270 | 25 |
| Rockfish, Canary | 7 | 2.09 | 1 | 1.1 | 1 | 2.09 | 520 | 0 |
| Rockfish, Widow | 8 | 1.92 | 1 | 1.1 | 1 | 1.92 | 513 | 0 |
| Rockfish, Starry | 9 | 1.03 | 1 | 1.1 | 1 | 1.03 | 392 | 0 |
| Rockfish, Blue | 10 | 0.95 | 1 | 1.1 | 1 | 0.95 | 397 | 0 |
| Total | | 100.47 | 90 | 100 | 88 | | | |

C. CPUE***

Catch per Angler Day = 7.50 Catch per Angler Hour = 1.07
 Kg per Angler Day = 8.37 Kg per Angler Hour = 1.20

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 40. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 22 |
| Total Hours Effort for Anglers Intercepted | = | 79.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Surfperches | 1 | 23 | 48.9 |
| Sculpin, Pacific Staghorn | 2 | 11 | 23.4 |
| Rockfishes (unidentified) | 3 | 5 | 10.6 |
| Surfperch, Walleye | 4 | 4 | 8.5 |
| Seaperch, White | 5 | 2 | 4.3 |
| Jacksmelt | 6 | 1 | 2.1 |
| Surfperch, Barred | 7 | 1 | 2.1 |
| Total | | 47 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 2.14 | Catch per Angler Hour | = | 0.59 |
|----------------------|---|------|-----------------------|---|------|

Table 41. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 22 |
| Total Hours Effort for Anglers Intercepted | = | 79.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperches | 1 | 15 | 65.2 | 0.11** | 1.65 |
| Surfperch, Walleye | 2 | 4 | 17.4 | 0.13 | 0.51 |
| Seaperch, White | 3 | 2 | 8.7 | 0.10 | 0.21 |
| Jacksmelt | 4 | 1 | 4.3 | 0.00** | 0.00 |
| Surfperch, Barred | 5 | 1 | 4.3 | 0.07 | 0.07 |
| Total | | 23 | 100 | | 2.44 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.05 | Catch per Angler Hour | = | 0.29 |
| Kg per Angler Day | = | 0.11 | Kg per Angler Hour | = | 0.03 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 42. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 22
 Total Hours Effort for Anglers Intercepted = 79.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Surfperch, Walleye | 1 | 0.51 | 4 | 57.1 | 4 | 0.13 | 200 | 10 |
| Seaperch, White | 2 | 0.21 | 2 | 28.6 | 2 | 0.10 | 204 | 4 |
| Surfperch, Barred | 3 | 0.07 | 1 | 14.3 | 1 | 0.07 | 157 | 0 |
| Total | | 0.79 | 7 | 100 | 7 | | | |

C. CPUE***

Catch per Angler Day = 0.32 Catch per Angler Hour = 0.09
 Kg per Angler Day = 0.04 Kg per Angler Hour = 0.01

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 43. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 12
 Total Hours Effort for Anglers Intercepted = 36.0
 Total Hours Still to Fish (Incomplete Trips) = 1.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Surfperches | 1 | 11 | 47.8 |
| Perch, Black | 2 | 6 | 26.1 |
| Rockfishes (unidentified) | 3 | 3 | 13.0 |
| Seaperch, Striped | 4 | 2 | 8.7 |
| Greenling, Kelp | 5 | 1 | 4.3 |
| Total | | 23 | 100 |

C. CPUE

Catch per Angler Day = 1.92 Catch per Angler Hour = 0.64

Table 44. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 12 |
| Total Hours Effort for Anglers Intercepted | = | 36.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 1.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Perch, Black | 1 | 6 | 66.7 | 0.26 | 1.57 |
| Rockfishes (unidentified) | 2 | 1 | 11.1 | 0.00** | 0.00 |
| Greenling, Kelp | 3 | 1 | 11.1 | 0.16 | 0.16 |
| Seaperch, Striped | 4 | 1 | 11.1 | 0.14 | 0.14 |
| Total | | 9 | 100 | | 1.86 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.75 | Catch per Angler Hour | = | 0.25 |
| Kg per Angler Day | = | 0.16 | Kg per Angler Hour | = | 0.05 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 45. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 12
 Total Hours Effort for Anglers Intercepted = 36.0
 Total Hours Still to Fish (Incomplete Trips) = 1.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|---------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Perch, Black | 1 | 1.57 | 6 | 66.7 | 6 | 0.26 | 242 | 19 |
| Greenling, Kelp | 2 | 0.16 | 1 | 11.1 | 1 | 0.16 | 220 | 0 |
| Seaperch, Striped | 3 | 0.14 | 1 | 11.1 | 1 | 0.14 | 204 | 0 |
| Rockfishes (unidentified) | 4 | 0.00 | 1 | 11.1 | 0 | 0.00 | 0 | 0 |
| Total | | 1.86 | 9 | 100 | 8 | | | |

C. CPUE***

Catch per Angler Day = 0.75 Catch per Angler Hour = 0.25
 Kg per Angler Day = 0.16 Kg per Angler Hour = 0.05

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 46. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 19 |
| Total Hours Effort for Anglers Intercepted | = | 60.9 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|--------------------|-------------------|------------------|----------------|
| Surfperch, Barred | 1 | 17 | 44.7 |
| Surfperch, Silver | 2 | 13 | 34.2 |
| Greenling, Kelp | 3 | 3 | 7.9 |
| Surfperch, Redtail | 4 | 3 | 7.9 |
| Cabezon | 5 | 2 | 5.3 |
| Total | | 38 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 2.00 | Catch per Angler Hour | = | 0.62 |
|----------------------|---|------|-----------------------|---|------|

Table 47. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 19
 Total Hours Effort for Anglers Intercepted = 60.9
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperch, Barred | 1 | 17 | 45.9 | 0.22 | 3.70 |
| Surfperch, Silver | 2 | 13 | 35.1 | 0.09 | 1.12 |
| Greenling, Kelp | 3 | 3 | 8.1 | 0.00** | 0.00 |
| Surfperch, Redtail | 4 | 3 | 8.1 | 0.29 | 0.87 |
| Cabezon | 5 | 1 | 2.7 | 0.75 | 0.75 |
| Total | | 37 | 100 | | 6.44 |

C. CPUE

Catch per Angler Day = 1.95 Catch per Angler Hour = 0.61
 Kg per Angler Day = 0.34 Kg per Angler Hour = 0.11

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 48. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 19
 Total Hours Effort for Anglers Intercepted = 60.9
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Surfperch, Barred | 1 | 3.70 | 17 | 50.0 | 17 | 0.22 | 220 | 39 |
| Surfperch, Silver | 2 | 1.12 | 13 | 38.2 | 10 | 0.09 | 177 | 13 |
| Surfperch, Redtail | 3 | 0.87 | 3 | 8.8 | 3 | 0.29 | 248 | 61 |
| Cabezon | 4 | 0.75 | 1 | 2.9 | 1 | 0.75 | 352 | 0 |
| Total | | 6.44 | 34 | 100 | 31 | | | |

C. CPUE***

Catch per Angler Day = 1.79 Catch per Angler Hour = 0.56
 Kg per Angler Day = 0.34 Kg per Angler Hour = 0.11

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 49. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 9 |
| Total Hours Effort for Anglers Intercepted | = | 37.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Lingcod | 1 | 6 | 50.0 |
| Halibut, California | 2 | 2 | 16.7 |
| Rockfishes (unidentified) | 3 | 1 | 8.3 |
| Rockfish, Copper | 4 | 1 | 8.3 |
| Flounders, Righteye | 5 | 1 | 8.3 |
| Sole, Sand | 6 | 1 | 8.3 |
| Total | | 12 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.33 | Catch per Angler Hour | = | 0.32 |
|----------------------|---|------|-----------------------|---|------|

Table 50. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 9
 Total Hours Effort for Anglers Intercepted = 37.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------|-------------------|------------------|----------------|-------------------|------------------|
| Lingcod | 1 | 6 | 60.0 | 2.68 | 16.08 |
| Halibut, California | 2 | 2 | 20.0 | 6.25 | 12.50 |
| Rockfish, Copper | 3 | 1 | 10.0 | 1.72 | 1.72 |
| Sole, Sand | 4 | 1 | 10.0 | 0.57 | 0.57 |
| Total | | 10 | 100 | | 30.87 |

C. CPUE

Catch per Angler Day = 1.11 Catch per Angler Hour = 0.27
 Kg per Angler Day = 3.43 Kg per Angler Hour = 0.82

* Weight estimated from length-to-weight regression if available.

Table 51. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 9
 Total Hours Effort for Anglers Intercepted = 37.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|---------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Lingcod | 1 | 16.08 | 6 | 60.0 | 6 | 2.68 | 624 | 52 |
| Halibut, California | 2 | 12.50 | 2 | 20.0 | 2 | 6.25 | 839 | 2 |
| Rockfish, Copper | 3 | 1.72 | 1 | 10.0 | 1 | 1.72 | 454 | 0 |
| Sole, Sand | 4 | 0.57 | 1 | 10.0 | 1 | 0.57 | 351 | 0 |
| Total | | 30.87 | 10 | 100 | 10 | | | |

C. CPUE***

Catch per Angler Day = 1.11 Catch per Angler Hour = 0.27
 Kg per Angler Day = 3.43 Kg per Angler Hour = 0.82

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 52. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 30 |
| Total Hours Effort for Anglers Intercepted | = | 261.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Rockfishes (unidentified) | 1 | 74 | 32.0 |
| Rockfish, Yellowtail | 2 | 39 | 16.9 |
| Lingcod | 3 | 24 | 10.4 |
| Rockfish, Blue | 4 | 23 | 10.0 |
| Rockfish, Canary | 5 | 17 | 7.4 |
| Bocaccio | 6 | 12 | 5.2 |
| Surfperches | 7 | 10 | 4.3 |
| Rockfish, Olive | 8 | 8 | 3.5 |
| Rockfish, Black | 9 | 6 | 2.6 |
| Mackerel, Pacific (Chub) | 10 | 5 | 2.2 |
| Rockfish, Copper | 11 | 2 | 0.9 |
| Rockfish, China | 12 | 2 | 0.9 |
| Rockfish, Rosy | 13 | 2 | 0.9 |
| Rockfish, Greenspotted | 14 | 2 | 0.9 |
| Sharks | 15 | 1 | 0.4 |
| Rockfish, Vermilion | 16 | 1 | 0.4 |
| Rockfish, Yelloweye | 17 | 1 | 0.4 |
| Rockfish, Flag | 18 | 1 | 0.4 |
| Sole, Petrale | 19 | 1 | 0.4 |
| Total | | 231 | 100 |

C. CPUE

Catch per Angler Day = 7.70 Catch per Angler Hour = 0.89

Table 53. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 30
 Total Hours Effort for Anglers Intercepted = 261.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfishes (unidentified) | 1 | 74 | 32.2 | 1.08** | 79.92 |
| Rockfish, Yellowtail | 2 | 39 | 17.0 | 0.89 | 34.78 |
| Lingcod | 3 | 24 | 10.4 | 2.65 | 63.53 |
| Rockfish, Blue | 4 | 23 | 10.0 | 0.74 | 17.05 |
| Rockfish, Canary | 5 | 17 | 7.4 | 1.73 | 29.49 |
| Bocaccio | 6 | 12 | 5.2 | 1.87 | 22.41 |
| Surfperches | 7 | 10 | 4.3 | 0.00** | 0.00 |
| Rockfish, Olive | 8 | 8 | 3.5 | 0.54 | 4.36 |
| Rockfish, Black | 9 | 6 | 2.6 | 0.75 | 4.50 |
| Mackerel, Pacific (Chub) | 10 | 5 | 2.2 | 0.00** | 0.00 |
| Rockfish, Copper | 11 | 2 | 0.9 | 1.03 | 2.06 |
| Rockfish, China | 12 | 2 | 0.9 | 1.30 | 2.60 |
| Rockfish, Rosy | 13 | 2 | 0.9 | 0.21 | 0.42 |
| Rockfish, Greenspotted | 14 | 2 | 0.9 | 0.85 | 1.69 |
| Rockfish, Vermilion | 15 | 1 | 0.4 | 2.44 | 2.44 |
| Rockfish, Yelloweye | 16 | 1 | 0.4 | 2.27 | 2.27 |
| Rockfish, Flag | 17 | 1 | 0.4 | 0.67 | 0.67 |
| Sole, Petrale | 18 | 1 | 0.4 | 1.85 | 1.85 |
| Total | | 230 | 100 | | 270.04 |

C. CPUE

Catch per Angler Day = 7.67 Catch per Angler Hour = 0.88
 Kg per Angler Day = 9.00 Kg per Angler Hour = 1.03

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 54. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 30
 Total Hours Effort for Anglers Intercepted = 261.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Yellowtail | 1 | 34.78 | 39 | 33.1 | 39 | 0.89 | 380 | 79 |
| Rockfish, Canary | 2 | 29.49 | 17 | 14.4 | 17 | 1.73 | 474 | 88 |
| Bocaccio | 3 | 22.41 | 12 | 10.2 | 12 | 1.87 | 543 | 103 |
| Rockfish, Blue | 4 | 14.83 | 20 | 16.9 | 20 | 0.74 | 362 | 36 |
| Lingcod | 5 | 10.59 | 4 | 3.4 | 4 | 2.65 | 620 | 63 |
| Rockfish, Black | 6 | 4.50 | 6 | 5.1 | 6 | 0.75 | 364 | 42 |
| Rockfish, Olive | 7 | 4.36 | 8 | 6.8 | 8 | 0.54 | 345 | 35 |
| Rockfish, China | 8 | 2.60 | 2 | 1.7 | 2 | 1.30 | 395 | 93 |
| Rockfish, Vermilion | 9 | 2.44 | 1 | 0.8 | 1 | 2.44 | 536 | 0 |
| Rockfish, Yelloweye | 10 | 2.27 | 1 | 0.8 | 1 | 2.27 | 496 | 0 |
| Rockfish, Copper | 11 | 2.06 | 2 | 1.7 | 2 | 1.03 | 382 | 25 |
| Sole, Petrale | 12 | 1.85 | 1 | 0.8 | 1 | 1.85 | 514 | 0 |
| Rockfish, Greenspotted | 13 | 1.69 | 2 | 1.7 | 2 | 0.85 | 374 | 46 |
| Rockfish, Flag | 14 | 0.67 | 1 | 0.8 | 1 | 0.67 | 342 | 0 |
| Rockfish, Rosy | 15 | 0.42 | 2 | 1.7 | 2 | 0.21 | 234 | 18 |
| Total | | 134.96 | 118 | 100 | 118 | | | |

C. CPUE***

Catch per Angler Day = 3.93 Catch per Angler Hour = 0.45
 Kg per Angler Day = 4.50 Kg per Angler Hour = 0.52

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 55. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 157
 Total Hours Effort for Anglers Intercepted = 529.5
 Total Hours Still to Fish (Incomplete Trips) = 1.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Sculpin, Pacific Staghorn | 1 | 96 | 55.8 |
| Surfperches | 2 | 15 | 8.7 |
| Bass, Striped | 3 | 9 | 5.2 |
| Rockfish, Brown | 4 | 8 | 4.7 |
| Perch, Shiner | 5 | 8 | 4.7 |
| Gobies | 6 | 7 | 4.1 |
| Goby, Yellowfin | 7 | 7 | 4.1 |
| Croaker, White | 8 | 6 | 3.5 |
| Sanddab, Speckled | 9 | 4 | 2.3 |
| Surfperch, Walleye | 10 | 3 | 1.7 |
| Stingrays | 11 | 2 | 1.2 |
| Perch, Black | 12 | 2 | 1.2 |
| Seaperch, White | 13 | 2 | 1.2 |
| Unidentified Fishes | 14 | 1 | 0.6 |
| Skates | 15 | 1 | 0.6 |
| Rockfishes (unidentified) | 16 | 1 | 0.6 |
| Total | | 172 | 100 |

C. CPUE

Catch per Angler Day = 1.10 Catch per Angler Hour = 0.32

Table 56. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 157
 Total Hours Effort for Anglers Intercepted = 529.5
 Total Hours Still to Fish (Incomplete Trips) = 1.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperches | 1 | 10 | 17.5 | 0.20** | 2.00 |
| Sculpin, Pacific Staghorn | 2 | 9 | 15.8 | 0.00** | 0.00 |
| Rockfish, Brown | 3 | 8 | 14.0 | 0.05 | 0.43 |
| Gobies | 4 | 7 | 12.3 | 0.00** | 0.00 |
| Croaker, White | 5 | 6 | 10.5 | 0.19 | 1.16 |
| Sanddab, Speckled | 6 | 4 | 7.0 | 0.00** | 0.00 |
| Bass, Striped | 7 | 3 | 5.3 | 1.63 | 4.88 |
| Surfperch, Walleye | 8 | 3 | 5.3 | 0.21 | 0.64 |
| Stingrays | 9 | 2 | 3.5 | 0.00** | 0.00 |
| Perch, Black | 10 | 2 | 3.5 | 0.17 | 0.34 |
| Seaperch, White | 11 | 2 | 3.5 | 0.29 | 0.58 |
| Perch, Shiner | 12 | 1 | 1.8 | 0.04 | 0.04 |
| Total | | 57 | 100 | | 10.07 |

C. CPUE

Catch per Angler Day = 0.36 Catch per Angler Hour = 0.11
 Kg per Angler Day = 0.06 Kg per Angler Hour = 0.02

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 57. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 157
 Total Hours Effort for Anglers Intercepted = 529.5
 Total Hours Still to Fish (Incomplete Trips) = 1.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Bass, Striped | 1 | 4.88 | 3 | 11.1 | 3 | 1.63 | 646 | 90 |
| Croaker, White | 2 | 0.77 | 4 | 14.8 | 4 | 0.19 | 252 | 43 |
| Surfperch, Walleye | 3 | 0.64 | 3 | 11.1 | 3 | 0.21 | 229 | 18 |
| Seaperch, White | 4 | 0.58 | 2 | 7.4 | 2 | 0.29 | 284 | 51 |
| Rockfish, Brown | 5 | 0.43 | 8 | 29.6 | 8 | 0.05 | 141 | 16 |
| Perch, Black | 6 | 0.34 | 2 | 7.4 | 2 | 0.17 | 202 | 33 |
| Perch, Shiner | 7 | 0.04 | 1 | 3.7 | 1 | 0.04 | 148 | 0 |
| Sanddab, Speckled | 8 | 0.00 | 4 | 14.8 | 0 | 0.00 | 0 | 0 |
| Total | | 7.69 | 27 | 100 | 23 | | | |

C. CPUE***

Catch per Angler Day = 0.17 Catch per Angler Hour = 0.05
 Kg per Angler Day = 0.05 Kg per Angler Hour = 0.01

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 58. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 21 |
| Total Hours Effort for Anglers Intercepted | = | 51.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------|-------------------|------------------|----------------|
| Surfperches | 1 | 3 | 50.0 |
| Perch, Black | 2 | 2 | 33.3 |
| Surfperch, Walleye, | 3 | 1 | 16.7 |
| Total | | 6 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.29 | Catch per Angler Hour | = | 0.12 |
|----------------------|---|------|-----------------------|---|------|

Table 59. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay).
in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using
Hook-and-Line Gear. Catch Represents Number Landed
and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 21
Total Hours Effort for Anglers Intercepted = 51.5
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Perch, Black | 1 | 2 | 50.0 | 0.26 | 0.53 |
| Surfperches | 2 | 1 | 25.0 | 0.25** | 0.25 |
| Surfperch, Walleye | 3 | 1 | 25.0 | 0.22 | 0.22 |
| Total | | 4 | 100 | | 1.00 |

C. CPUE

Catch per Angler Day = 0.19 Catch per Angler Hour = 0.08
Kg per Angler Day = 0.05 Kg per Angler Hour = 0.02

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 60. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 21
 Total Hours Effort for Anglers Intercepted = 51.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Perch, Black | 1 | 0.53 | 2 | 66.7 | 2 | 0.26 | 240 | 50 |
| Surfperch, Walleye | 2 | 0.22 | 1 | 33.3 | 1 | 0.22 | 233 | 0 |
| Total | | 0.75 | 3 | 100 | 3 | | | |

C. CPUE***

Catch per Angler Day = 0.14 Catch per Angler Hour = 0.06
 Kg per Angler Day = 0.04 Kg per Angler Hour = 0.01

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 61. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 83
 Total Hours Effort for Anglers Intercepted = 305.5
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Sculpin, Pacific Staghorn | 1 | 46 | 48.9 |
| Goby, Yellowfin | 2 | 10 | 10.6 |
| Perch, Shiner | 3 | 8 | 8.5 |
| Bass, Striped | 4 | 6 | 6.4 |
| Jacksmelt | 5 | 5 | 5.3 |
| Lingcod | 6 | 3 | 3.2 |
| Surfperches | 7 | 3 | 3.2 |
| Croaker, White | 8 | 2 | 2.1 |
| Perch, Black | 9 | 2 | 2.1 |
| Seaperch, Rainbow | 10 | 2 | 2.1 |
| Flounder, Starry | 11 | 2 | 2.1 |
| Shark, Leopard | 12 | 1 | 1.1 |
| Skates | 13 | 1 | 1.1 |
| Greenling, Kelp | 14 | 1 | 1.1 |
| Cabezon | 15 | 1 | 1.1 |
| Gobies | 16 | 1 | 1.1 |
| Total | | 94 | 100 |

C. CPUE

Catch per Angler Day = 1.13 Catch per Angler Hour = 0.31

Table 62. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 83
 Total Hours Effort for Anglers Intercepted = 305.5
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Bass, Striped | 1 | 5 | 23.8 | 2.26 | 11.29 |
| Jacksmelt | 2 | 4 | 19.0 | 0.45 | 1.80 |
| Sculpin, Pacific Staghorn | 3 | 3 | 14.3 | 0.00** | 0.00 |
| Perch, Black | 4 | 2 | 9.5 | 0.27 | 0.53 |
| Seaperch, Rainbow | 5 | 2 | 9.5 | 0.22 | 0.44 |
| Flounder, Starry | 6 | 2 | 9.5 | 0.38 | 0.75 |
| Shark, Leopard | 7 | 1 | 4.8 | 3.07 | 3.07 |
| Greenling, Kelp | 8 | 1 | 4.8 | 0.09 | 0.09 |
| Gobies | 9 | 1 | 4.8 | 0.00** | 0.00 |
| Total | | 21 | 100 | | 17.97 |

C. CPUE

Catch per Angler Day = 0.25 Catch per Angler Hour = 0.07
 Kg per Angler Day = 0.22 Kg per Angler Hour = 0.06

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 63. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 83
 Total Hours Effort for Anglers Intercepted = 305.5
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Bass, Striped | 1 | 11.29 | 5 | 27.8 | 5 | 2.26 | 672 | 225 |
| Shark, Leopard | 2 | 3.07 | 1 | 5.6 | 1 | 3.07 | 685 | 0 |
| Jacksmelt | 3 | 1.80 | 4 | 22.2 | 4 | 0.45 | 379 | 36 |
| Flounder, Starry | 4 | 0.75 | 2 | 11.1 | 2 | 0.38 | 314 | 56 |
| Perch, Black | 5 | 0.53 | 2 | 11.1 | 2 | 0.27 | 232 | 91 |
| Seaperch, Rainbow | 6 | 0.44 | 2 | 11.1 | 2 | 0.22 | 238 | 27 |
| Greenling, Kelp | 7 | 0.09 | 1 | 5.6 | 1 | 0.09 | 180 | 0 |
| Gobies | 8 | 0.00 | 1 | 5.6 | 0 | 0.00 | 0 | 0 |
| Total | | 17.97 | 18 | 100 | 17 | | | |

C. CPUE***

Catch per Angler Day = 0.22 Catch per Angler Hour = 0.06
 Kg per Angler Day = 0.22 Kg per Angler Hour = 0.06

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 64. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 117
 Total Hours Effort for Anglers Intercepted = 590.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Surfperches | 1 | 75 | 29.3 |
| Sculpin, Pacific Staghorn | 2 | 49 | 19.1 |
| Croaker, White | 3 | 25 | 9.8 |
| Jacksmelt | 4 | 24 | 9.4 |
| Surfperch, Walleye | 5 | 17 | 6.6 |
| Shark, Leopard | 6 | 12 | 4.7 |
| Seaperch, White | 7 | 11 | 4.3 |
| Smoothhound, Brown | 8 | 9 | 3.5 |
| Perch, Pile | 9 | 6 | 2.3 |
| Sturgeon, White | 10 | 4 | 1.6 |
| Seaperch, Striped | 11 | 4 | 1.6 |
| Rockfishes (unidentified) | 12 | 3 | 1.2 |
| Pricklebacks | 13 | 3 | 1.2 |
| Flounder, Starry | 14 | 3 | 1.2 |
| Rockfish, Blue | 15 | 2 | 0.8 |
| Rockfish, Grass | 16 | 2 | 0.8 |
| Perch, Black | 17 | 2 | 0.8 |
| Sharks | 18 | 1 | 0.4 |
| Bass, Striped | 19 | 1 | 0.4 |
| Seaperch, Rubberlip | 20 | 1 | 0.4 |
| Surfperch, Barred | 21 | 1 | 0.4 |
| Halibut, California | 22 | 1 | 0.4 |
| Total | | 256 | 100 |

C. CPUE

Catch per Angler Day = 2.19 Catch per Angler Hour = 0.43

Table 65. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 117
 Total Hours Effort for Anglers Intercepted = 590.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperches | 1 | 73 | 39.7 | 0.34** | 24.82 |
| Croaker, White | 2 | 25 | 13.6 | 0.36 | 9.12 |
| Jacksmelt | 3 | 24 | 13.0 | 0.17 | 4.07 |
| Surfperch, Walleye | 4 | 17 | 9.2 | 0.37 | 6.36 |
| Seaperch, White | 5 | 11 | 6.0 | 0.25 | 2.76 |
| Perch, Pile | 6 | 6 | 3.3 | 0.49 | 2.97 |
| Sturgeon, White | 7 | 4 | 2.2 | 21.87 | 87.50 |
| Seaperch, Striped | 8 | 4 | 2.2 | 0.34 | 1.34 |
| Pricklebacks | 9 | 3 | 1.6 | 0.00** | 0.00 |
| Flounder, Starry | 10 | 3 | 1.6 | 0.46 | 1.39 |
| Rockfishes (unidentified) | 11 | 2 | 1.1 | 0.42** | 0.84 |
| Rockfish, Blue | 12 | 2 | 1.1 | 0.38 | 0.76 |
| Rockfish, Grass | 13 | 2 | 1.1 | 0.45 | 0.91 |
| Perch, Black | 14 | 2 | 1.1 | 0.21 | 0.41 |
| Shark, Leopard | 15 | 1 | 0.5 | 2.56 | 2.56 |
| Sculpin, Pacific Staghorn | 16 | 1 | 0.5 | 0.00** | 0.00 |
| Bass, Striped | 17 | 1 | 0.5 | 1.19 | 1.19 |
| Seaperch, Rubberlip | 18 | 1 | 0.5 | 0.24 | 0.24 |
| Surfperch, Barred | 19 | 1 | 0.5 | 0.33 | 0.33 |
| Halibut, California | 20 | 1 | 0.5 | 6.94 | 6.94 |
| Total | | 184 | 100 | | 154.50 |

C. CPUE

Catch per Angler Day = 1.57 Catch per Angler Hour = 0.31
 Kg per Angler Day = 1.32 Kg per Angler Hour = 0.26

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 66. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay)
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents Only the Fish
Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 117
Total Hours Effort for Anglers Intercepted = 590.5
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ----Mean---- | | SD LN. |
|---------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Sturgeon, White | 1 | 87.50 | 4 | 3.8 | 4 | 21.87 | 1450 | 226 |
| Croaker, White | 2 | 9.12 | 25 | 23.8 | 25 | 0.36 | 315 | 25 |
| Halibut, California | 3 | 6.94 | 1 | 1.0 | 1 | 6.94 | 868 | 0 |
| Surfperch, Walleye | 4 | 6.36 | 17 | 16.2 | 14 | 0.37 | 263 | 33 |
| Jacksmelt | 5 | 4.07 | 24 | 22.9 | 10 | 0.17 | 284 | 21 |
| Perch, Pile | 6 | 2.97 | 6 | 5.7 | 6 | 0.49 | 310 | 27 |
| Seaperch, White | 7 | 2.76 | 11 | 10.5 | 11 | 0.25 | 271 | 33 |
| Shark, Leopard | 8 | 2.56 | 1 | 1.0 | 1 | 2.56 | 643 | 0 |
| Flounder, Starry | 9 | 1.39 | 3 | 2.9 | 3 | 0.46 | 338 | 21 |
| Seaperch, Striped | 10 | 1.34 | 4 | 3.8 | 4 | 0.34 | 272 | 29 |
| Bass, Striped | 11 | 1.19 | 1 | 1.0 | 1 | 1.19 | 587 | 0 |
| Rockfish, Grass | 12 | 0.91 | 2 | 1.9 | 2 | 0.45 | 276 | 15 |
| Rockfish, Blue | 13 | 0.76 | 2 | 1.9 | 2 | 0.38 | 290 | 42 |
| Perch, Black | 14 | 0.41 | 2 | 1.9 | 2 | 0.21 | 219 | 37 |
| Surfperch, Barred | 15 | 0.33 | 1 | 1.0 | 1 | 0.33 | 260 | 0 |
| Seaperch, Rubberlip | 16 | 0.24 | 1 | 1.0 | 1 | 0.24 | 229 | 0 |
| Total | | 128.84 | 105 | 100 | 88 | | | |

C. CPUE***

Catch per Angler Day = 0.90 Catch per Angler Hour = 0.18
Kg per Angler Day = 1.10 Kg per Angler Hour = 0.22

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 67. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 17
 Total Hours Effort for Anglers Intercepted = 139.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|------------------|-------------------|------------------|----------------|
| Spiny Dogfish | 1 | 5 | 55.6 |
| Shark, Leopard | 2 | 3 | 33.3 |
| Shark, Sevengill | 3 | 1 | 11.1 |
| Total | | 9 | 100 |

C. CPUE

Catch per Angler Day = 0.53 Catch per Angler Hour = 0.06

Table 68. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 17
 Total Hours Effort for Anglers Intercepted = 139.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|------------------|-------------------|------------------|----------------|-------------------|------------------|
| Spiny Dogfish | 1 | 5 | 55.6 | 0.00** | 0.00 |
| Shark, Leopard | 2 | 3 | 33.3 | 0.00** | 0.00 |
| Shark, Sevengill | 3 | 1 | 11.1 | 417.13 | 417.13 |
| Total | | 9 | 100 | | 417.13 |

C. CPUE

Catch per Angler Day = 0.53 Catch per Angler Hour = 0.06
 Kg per Angler Day = 24.54 Kg per Angler Hour = 2.99

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 69. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 17
 Total Hours Effort for Anglers Intercepted = 139.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Shark, Sevengill | 1 | 417.13 | 1 | %100.0 | 1 | %417.13 | 2360 | 0 |
| Total | | 417.13 | 1 | 100 | 1 | | | |

C. CPUE***

Catch per Angler Day = 0.06 Catch per Angler Hour = 0.01
 Kg per Angler Day = 24.54 Kg per Angler Hour = 2.99

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 70. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 127
 Total Hours Effort for Anglers Intercepted = 370.5
 Total Hours Still to Fish (Incomplete Trips) = 44.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Mackerel, Pacific (Chub) | 1 | 52 | 41.6 |
| Jacksmelt | 2 | 22 | 17.6 |
| Croaker, White | 3 | 14 | 11.2 |
| Surfperch, Walleye | 4 | 7 | 5.6 |
| Surfperches | 5 | 5 | 4.0 |
| Seaperch, White | 6 | 5 | 4.0 |
| Sculpin, Pacific Staghorn | 7 | 4 | 3.2 |
| Surfperch, Barred | 8 | 4 | 3.2 |
| Salmon | 9 | 3 | 2.4 |
| Mackerels and Tunas | 10 | 3 | 2.4 |
| Perch, Black | 11 | 2 | 1.6 |
| Flounder, Starry | 12 | 2 | 1.6 |
| Lingcod | 13 | 1 | 0.8 |
| Seaperch, Striped | 14 | 1 | 0.8 |
| Total | | 125 | 100 |

C. CPUE

Catch per Angler Day = 0.98 Catch per Angler Hour = 0.34

Table 71. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 127
 Total Hours Effort for Anglers Intercepted = 370.5
 Total Hours Still to Fish (Incomplete Trips) = 44.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Mackerel, Pacific (Chub) | 1 | 44 | 55.0 | 0.28 | 12.40 |
| Jacksnelt | 2 | 14 | 17.5 | 0.41 | 5.74 |
| Surfperch, Walleye | 3 | 7 | 8.8 | 0.11 | 0.77 |
| Seaperch, White | 4 | 5 | 6.3 | 0.00** | 0.00 |
| Surfperch, Barred | 5 | 4 | 5.0 | 0.12 | 0.48 |
| Perch, Black | 6 | 2 | 2.5 | 0.00** | 0.00 |
| Croaker, White | 7 | 1 | 1.3 | 0.00** | 0.00 |
| Seaperch, Striped | 8 | 1 | 1.3 | 0.07 | 0.07 |
| Mackerels and Tunas | 9 | 1 | 1.3 | 0.28** | 0.28 |
| Flounder, Starry | 10 | 1 | 1.3 | 0.00** | 0.00 |
| Total | | 80 | 100 | | 19.73 |

C. CPUE

Catch per Angler Day = 0.63 Catch per Angler Hour = 0.22
 Kg per Angler Day = 0.16 Kg per Angler Hour = 0.05

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 72. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 127
 Total Hours Effort for Anglers Intercepted = 370.5
 Total Hours Still to Fish (Incomplete Trips) = 44.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Mackerel, Pacific (Chub) | 1 | 11.27 | 40 | 74.1 | 39 | 0.28 | 276 | 36 |
| Jacksnelt | 2 | 2.46 | 6 | 11.1 | 6 | 0.41 | 371 | 14 |
| Surfperch, Barred | 3 | 0.48 | 4 | 7.4 | 4 | 0.12 | 188 | 7 |
| Surfperch, Walleye | 4 | 0.33 | 3 | 5.6 | 3 | 0.11 | 191 | 13 |
| Seaperch, Striped | 5 | 0.07 | 1 | 1.9 | 1 | 0.07 | 160 | 0 |
| Total | | 14.61 | 54 | 100 | 53 | | | |

C. CPUE***

Catch per Angler Day = 0.43 Catch per Angler Hour = 0.15
 Kg per Angler Day = 0.12 Kg per Angler Hour = 0.04

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 73. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 16 |
| Total Hours Effort for Anglers Intercepted | = | 44.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-------------|-------------------|------------------|----------------|
| Surfperches | 1 | 5 | 50.0 |
| Eelpouts | 2 | 1 | 10.0 |
| Jacksmelt | 3 | 1 | 10.0 |
| Cabezon | 4 | 1 | 10.0 |
| Perch, Pile | 5 | 1 | 10.0 |
| Sole, Sand | 6 | 1 | 10.0 |
| Total | | 10 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.63 | Catch per Angler Hour | = | 0.22 |
|----------------------|---|------|-----------------------|---|------|

Table 74. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 16 |
| Total Hours Effort for Anglers Intercepted | = | 44.5 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-------------|-------------------|------------------|----------------|-------------------|------------------|
| Jacksmelt | 1 | 1 | 33.3 | 0.00** | 0.00 |
| Perch, Pile | 2 | 1 | 33.3 | 0.89 | 0.89 |
| Sole, Sand | 3 | 1 | 33.3 | 0.25 | 0.25 |
| Total | | 3 | 100 | | 1.14 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 0.19 | Catch per Angler Hour | = | 0.07 |
| Kg per Angler Day | = | 0.07 | Kg per Angler Hour | = | 0.03 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 75. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 16
 Total Hours Effort for Anglers Intercepted = 44.5
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Perch, Pile | 1 | 0.89 | 1 | 50.0 | 1 | 0.89 | 377 | 0 |
| Sole, Sand | 2 | 0.25 | 1 | 50.0 | 1 | 0.25 | 273 | 0 |
| Total | | 1.14 | 2 | 100 | 2 | | | |

C. CPUE***

Catch per Angler Day = 0.13 Catch per Angler Hour = 0.04
 Kg per Angler Day = 0.07 Kg per Angler Hour = 0.03

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 76. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 76
 Total Hours Effort for Anglers Intercepted = 165.0
 Total Hours Still to Fish (Incomplete Trips) = 19.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|--------------------|-------------------|------------------|----------------|
| Surfperch, Barred | 1 | 32 | 34.8 |
| Surfperch, Redtail | 2 | 17 | 18.5 |
| Surfperches | 3 | 15 | 16.3 |
| Surfperch, Calico | 4 | 9 | 9.8 |
| Seaperch, White | 5 | 6 | 6.5 |
| Croaker, White | 6 | 3 | 3.3 |
| Seaperch, Striped | 7 | 3 | 3.3 |
| Greenling, Kelp | 8 | 1 | 1.1 |
| Bass, Striped | 9 | 1 | 1.1 |
| Surfperch, Walleye | 10 | 1 | 1.1 |
| Surfperch, Silver | 11 | 1 | 1.1 |
| Sandabs | 12 | 1 | 1.1 |
| Sanddab, Pacific | 13 | 1 | 1.1 |
| Sole, Sand | 14 | 1 | 1.1 |
| Total | | 92 | 100 |

C. CPUE

Catch per Angler Day = 1.21 Catch per Angler Hour = 0.56

Table 77. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 76
 Total Hours Effort for Anglers Intercepted = 165.0
 Total Hours Still to Fish (Incomplete Trips) = 19.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperch, Barred | 1 | 26 | 38.2 | 0.19 | 4.94 |
| Surfperch, Redtail | 2 | 17 | 25.0 | 0.10 | 1.67 |
| Surfperch, Calico | 3 | 9 | 13.2 | 0.13 | 1.13 |
| Seaperch, White | 4 | 6 | 8.8 | 0.15 | 0.90 |
| Croaker, White | 5 | 3 | 4.4 | 0.20 | 0.59 |
| Seaperch, Striped | 6 | 3 | 4.4 | 0.25 | 0.76 |
| Surfperch, Walleye | 7 | 1 | 1.5 | 0.09 | 0.09 |
| Surfperch, Silver | 8 | 1 | 1.5 | 0.07 | 0.07 |
| Sanddab, Pacific | 9 | 1 | 1.5 | 0.08 | 0.08 |
| Sole, Sand | 10 | 1 | 1.5 | 0.20 | 0.20 |
| Total | | 68 | 100 | | 10.43 |

C. CPUE

Catch per Angler Day = 0.89 Catch per Angler Hour = 0.41
 Kg per Angler Day = 0.14 Kg per Angler Hour = 0.06

* Weight estimated from length-to-weight regression if available.

Table 78. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 76
 Total Hours Effort for Anglers Intercepted = 165.0
 Total Hours Still to Fish (Incomplete Trips) = 19.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Surfperch, Barred | 1 | 4.37 | 23 | 35.4 | 23 | 0.19 | 211 | 36 |
| Surfperch, Redtail | 2 | 1.67 | 17 | 26.2 | 10 | 0.10 | 184 | 16 |
| Surfperch, Calico | 3 | 1.13 | 9 | 13.8 | 9 | 0.13 | 199 | 14 |
| Seaperch, White | 4 | 0.90 | 6 | 9.2 | 6 | 0.15 | 230 | 16 |
| Seaperch, Striped | 5 | 0.76 | 3 | 4.6 | 3 | 0.25 | 248 | 19 |
| Croaker, White | 6 | 0.59 | 3 | 4.6 | 3 | 0.20 | 253 | 46 |
| Sole, Sand | 7 | 0.20 | 1 | 1.5 | 1 | 0.20 | 257 | 0 |
| Surfperch, Walleye | 8 | 0.09 | 1 | 1.5 | 1 | 0.09 | 184 | 0 |
| Sanddab, Pacific | 9 | 0.08 | 1 | 1.5 | 1 | 0.08 | 201 | 0 |
| Surfperch, Silver | 10 | 0.07 | 1 | 1.5 | 1 | 0.07 | 163 | 0 |
| Total | | 9.86 | 65 | 100 | 58 | | | |

C. CPUE***

Catch per Angler Day = 0.86 Catch per Angler Hour = 0.39
 Kg per Angler Day = 0.13 Kg per Angler Hour = 0.06

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 79. Sampled Effort, Ranked Catch and CPUE for Area 4
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents All Fish Captured,
Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 107 |
| Total Hours Effort for Anglers Intercepted | = | 528.4 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|----------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 263 | 28.6 |
| Mackerel, Pacific (Chub) | 2 | 252 | 27.4 |
| Rockfishes (unidentified) | 3 | 191 | 20.8 |
| Croaker, White | 4 | 45 | 4.9 |
| Surfperches | 5 | 33 | 3.6 |
| Rockfish, Gopher | 6 | 20 | 2.2 |
| Rockfish, Olive | 7 | 18 | 2.0 |
| Rockfish, Rosethorn | 8 | 15 | 1.6 |
| Sanddab, Pacific | 9 | 15 | 1.6 |
| Lingcod | 10 | 12 | 1.3 |
| Rockfish, Canary | 11 | 9 | 1.0 |
| Rockfish, Brown | 12 | 7 | 0.8 |
| Rockfish, Copper | 13 | 5 | 0.5 |
| Rockfish, Vermilion | 14 | 5 | 0.5 |
| Halibut, California | 15 | 5 | 0.5 |
| Rockfish, Starry | 16 | 4 | 0.4 |
| Cabazon | 17 | 4 | 0.4 |
| Rockfish, Yellowtail | 18 | 3 | 0.3 |
| Rockfish, Black-and-yellow | 19 | 3 | 0.3 |
| Rockfish, Kelp | 20 | 2 | 0.2 |
| Perch, Black | 21 | 2 | 0.2 |
| Salmon | 22 | 1 | 0.1 |
| Jacksmelt | 23 | 1 | 0.1 |
| Rockfish, China | 24 | 1 | 0.1 |
| Greenling, Kelp | 25 | 1 | 0.1 |
| Seabass, White | 26 | 1 | 0.1 |

(Table 79. - continued)

| Common name | Rank by Number | Number Caught | % by Number |
|-------------------|-------------------|------------------|----------------|
| Seaperch, Striped | 27 | 1 | 0.1 |
| Flounder, Starry | 28 | 1 | 0.1 |
| Total | | 920 | 100 |

C. CPUE

Catch per Angler Day = 8.60 Catch per Angler Hour = 1.74

Table 80. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 107
 Total Hours Effort for Anglers Intercepted = 528.4
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|----------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Mackerel, Pacific (Chub) | 1 | 216 | 30.8 | 0.52 | 113.39 |
| Rockfish, Blue | 2 | 188 | 26.8 | 0.51 | 96.10 |
| Rockfishes (unidentified) | 3 | 149 | 21.3 | 0.49** | 73.01 |
| Surfperches | 4 | 22 | 3.1 | 0.23** | 5.06 |
| Rockfish, Gopher | 5 | 20 | 2.9 | 0.31 | 6.27 |
| Rockfish, Olive | 6 | 18 | 2.6 | 0.76 | 13.67 |
| Rockfish, Rosethorn | 7 | 15 | 2.1 | 0.25 | 3.71 |
| Croaker, White | 8 | 12 | 1.7 | 0.24 | 2.93 |
| Rockfish, Canary | 9 | 9 | 1.3 | 0.43 | 3.89 |
| Lingcod | 10 | 8 | 1.1 | 2.54 | 20.29 |
| Rockfish, Brown | 11 | 7 | 1.0 | 0.39 | 2.75 |
| Sanddab, Pacific | 12 | 7 | 1.0 | 0.00** | 0.00 |
| Rockfish, Copper | 13 | 5 | 0.7 | 0.64 | 3.18 |
| Rockfish, Starry | 14 | 4 | 0.6 | 0.41 | 1.63 |
| Cabezon | 15 | 4 | 0.6 | 1.17 | 4.67 |
| Rockfish, Yellowtail | 16 | 3 | 0.4 | 0.38 | 1.13 |
| Rockfish, Black-and-yellow | 17 | 3 | 0.4 | 0.42 | 1.25 |
| Rockfish, Vermilion | 18 | 2 | 0.3 | 0.94 | 1.87 |
| Rockfish, Kelp | 19 | 2 | 0.3 | 0.42 | 0.83 |
| Perch, Black | 20 | 2 | 0.3 | 0.24 | 0.49 |
| Jacksmelt | 21 | 1 | 0.1 | 0.17 | 0.17 |
| Rockfish, China | 22 | 1 | 0.1 | 0.51 | 0.51 |
| Greenling, Kelp | 23 | 1 | 0.1 | 0.00** | 0.00 |
| Seaperch, Striped | 24 | 1 | 0.1 | 0.19 | 0.19 |
| Flounder, Starry | 25 | 1 | 0.1 | 1.72 | 1.72 |
| Total | | 701 | 100 | | 358.72 |

C. CPUE

Catch per Angler Day = 6.55 Catch per Angler Hour = 1.33
 Kg per Angler Day = 3.35 Kg per Angler Hour = 0.68

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 81. Sampled Effort, Ranked Catch and CPUE for Area 4
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents Only the Fish
Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 107
Total Hours Effort for Anglers Intercepted = 528.4
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | Wt.* (kg) | Ln.** (mm) | SD LN. |
|----------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| Rockfish, Blue | 1 | 93.03 | 182 | 39.0 | 107 | 0.51 | 316 | 49 |
| Mackerel, Pacific (Chub) | 2 | 83.99 | 160 | 34.3 | 30 | 0.52 | 334 | 35 |
| Lingcod | 3 | 17.76 | 7 | 1.5 | 7 | 2.54 | 608 | 74 |
| Rockfish, Olive | 4 | 13.67 | 18 | 3.9 | 15 | 0.76 | 380 | 53 |
| Rockfish, Gopher | 5 | 5.96 | 19 | 4.1 | 17 | 0.31 | 267 | 22 |
| Rockfish, Canary | 6 | 3.89 | 9 | 1.9 | 9 | 0.43 | 306 | 38 |
| Rockfish, Rosethorn | 7 | 3.71 | 15 | 3.2 | 12 | 0.25 | 247 | 18 |
| Rockfish, Copper | 8 | 3.18 | 5 | 1.1 | 5 | 0.64 | 316 | 64 |
| Rockfish, Brown | 9 | 2.75 | 7 | 1.5 | 7 | 0.39 | 274 | 42 |
| Rockfish, Vermilion | 10 | 1.87 | 2 | 0.4 | 2 | 0.94 | 385 | 28 |
| Flounder, Starry | 11 | 1.72 | 1 | 0.2 | 1 | 1.72 | 503 | 0 |
| Rockfish, Starry | 12 | 1.63 | 4 | 0.9 | 4 | 0.41 | 290 | 38 |
| Rockfish, Black-and-yellow | 13 | 1.25 | 3 | 0.6 | 3 | 0.42 | 279 | 17 |
| Cabezon | 14 | 1.17 | 1 | 0.2 | 1 | 1.17 | 415 | 0 |
| Rockfish, Yellowtail | 15 | 1.13 | 3 | 0.6 | 3 | 0.38 | 298 | 8 |
| Rockfish, Kelp | 16 | 0.83 | 2 | 0.4 | 2 | 0.42 | 302 | 37 |
| Rockfish, China | 17 | 0.51 | 1 | 0.2 | 1 | 0.51 | 303 | 0 |
| Croaker, White | 18 | 0.49 | 2 | 0.4 | 2 | 0.24 | 278 | 23 |
| Perch, Black | 19 | 0.49 | 2 | 0.4 | 2 | 0.24 | 236 | 8 |
| Seaperch, Striped | 20 | 0.19 | 1 | 0.2 | 1 | 0.19 | 226 | 0 |
| Jacksmelt | 21 | 0.17 | 1 | 0.2 | 1 | 0.17 | 286 | 0 |
| Surfperches | 22 | 0.00 | 22 | 4.7 | 0 | 0.00 | 0 | 0 |
| Total | | 239.39 | 467 | 100 | 232 | | | |

C. CPUE***

Catch per Angler Day = 4.36 Catch per Angler Hour = 0.88
Kg per Angler Day = 2.24 Kg per Angler Hour = 0.45

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 82. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 27
 Total Hours Effort for Anglers Intercepted = 182.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 101 | 30.1 |
| Rockfish, Yellowtail | 2 | 99 | 29.6 |
| Rockfishes (unidentified) | 3 | 36 | 10.7 |
| Rockfish, Speckled | 4 | 17 | 5.1 |
| Rockfish, Olive | 5 | 15 | 4.5 |
| Rockfish, Widow | 6 | 12 | 3.6 |
| Rockfish, Rosethorn | 7 | 11 | 3.3 |
| Lingcod | 8 | 8 | 2.4 |
| Rockfish, Starry | 9 | 7 | 2.1 |
| Bocaccio | 10 | 6 | 1.8 |
| Rockfish, Greenspotted | 11 | 5 | 1.5 |
| Rockfish, Gopher | 12 | 5 | 1.5 |
| Rockfish, Canary | 13 | 3 | 0.9 |
| Mackerel, Pacific (Chub) | 14 | 3 | 0.9 |
| Rockfish, Flag | 15 | 2 | 0.6 |
| Thornyheads (general) | 16 | 2 | 0.6 |
| Rockfish, Black | 17 | 1 | 0.3 |
| Rockfish, Vermilion | 18 | 1 | 0.3 |
| Sanddab, Speckled | 19 | 1 | 0.3 |
| Total | | 335 | 100 |

C. CPUE

Catch per Angler Day = 12.41 Catch per Angler Hour = 1.84

Table 83. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 27
 Total Hours Effort for Anglers Intercepted = 182.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|--------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 101 | 34.2 | 0.52 | 52.80 |
| Rockfish, Yellowtail | 2 | 97 | 32.9 | 0.69 | 67.36 |
| Rockfish, Speckled | 3 | 17 | 5.8 | 0.57 | 9.69 |
| Rockfish, Olive | 4 | 15 | 5.1 | 1.38 | 20.74 |
| Rockfish, Widow | 5 | 12 | 4.1 | 0.46 | 5.49 |
| Rockfish, Rosethorn | 6 | 11 | 3.7 | 0.25 | 2.76 |
| Rockfish, Starry | 7 | 7 | 2.4 | 0.54 | 3.78 |
| Bocaccio | 8 | 6 | 2.0 | 1.71 | 10.24 |
| Lingcod | 9 | 6 | 2.0 | 3.34 | 20.02 |
| Rockfish, Greenspotted | 10 | 5 | 1.7 | 0.63 | 3.14 |
| Rockfish, Gopher | 11 | 5 | 1.7 | 0.32 | 1.59 |
| Rockfish, Canary | 12 | 3 | 1.0 | 0.79 | 2.38 |
| Mackerel, Pacific (Chub) | 13 | 3 | 1.0 | 0.41 | 1.24 |
| Rockfish, Flag | 14 | 2 | 0.7 | 0.63 | 1.25 |
| Thornyheads (general) | 15 | 2 | 0.7 | 0.00** | 0.00 |
| Rockfish, Black | 16 | 1 | 0.3 | 2.85 | 2.85 |
| Rockfish, Vermilion | 17 | 1 | 0.3 | 1.73 | 1.73 |
| Sanddab, Speckled | 18 | 1 | 0.3 | 0.00** | 0.00 |
| Total | | 295 | 100 | | 207.05 |

C. CPUE

Catch per Angler Day = 10.93 Catch per Angler Hour = 1.62
 Kg per Angler Day = 7.67 Kg per Angler Hour = 1.14

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 84. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 27
 Total Hours Effort for Anglers Intercepted = 182.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Yellowtail | 1 | 67.36 | 97 | 32.9 | 93 | 0.69 | 354 | 61 |
| Rockfish, Blue | 2 | 52.80 | 101 | 34.2 | 81 | 0.52 | 320 | 43 |
| Rockfish, Olive | 3 | 20.74 | 15 | 5.1 | 15 | 1.38 | 466 | 36 |
| Lingcod | 4 | 20.02 | 6 | 2.0 | 6 | 3.34 | 671 | 60 |
| Bocaccio | 5 | 10.24 | 6 | 2.0 | 6 | 1.71 | 538 | 66 |
| Rockfish, Speckled | 6 | 9.69 | 17 | 5.8 | 17 | 0.57 | 340 | 36 |
| Rockfish, Widow | 7 | 5.49 | 12 | 4.1 | 12 | 0.46 | 327 | 30 |
| Rockfish, Starry | 8 | 3.78 | 7 | 2.4 | 7 | 0.54 | 315 | 43 |
| Rockfish, Greenspotted | 9 | 3.14 | 5 | 1.7 | 5 | 0.63 | 338 | 32 |
| Rockfish, Black | 10 | 2.85 | 1 | 0.3 | 1 | 2.85 | 578 | 0 |
| Rockfish, Rosethorn | 11 | 2.76 | 11 | 3.7 | 11 | 0.25 | 248 | 18 |
| Rockfish, Canary | 12 | 2.38 | 3 | 1.0 | 3 | 0.79 | 367 | 82 |
| Rockfish, Vermilion | 13 | 1.73 | 1 | 0.3 | 1 | 1.73 | 476 | 0 |
| Rockfish, Gopher | 14 | 1.59 | 5 | 1.7 | 5 | 0.32 | 270 | 14 |
| Rockfish, Flag | 15 | 1.25 | 2 | 0.7 | 2 | 0.63 | 334 | 1 |
| Mackerel, Pacific (Chub) | 16 | 1.24 | 3 | 1.0 | 3 | 0.41 | 316 | 8 |
| Thornyheads (general) | 17 | 0.00 | 2 | 0.7 | 2 | 0.00 | 616 | 14 |
| Sanddab, Speckled | 18 | 0.00 | 1 | 0.3 | 0 | 0.00 | 0 | 0 |
| Total | | 207.05 | 295 | 100 | 270 | | | |

C. CPUE***

Catch per Angler Day = 10.93 Catch per Angler Hour = 1.62
 Kg per Angler Day = 7.67 Kg per Angler Hour = 1.14

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Figure 4. Length-Frequency Histogram for Pacific (Chub) Mackerel
Taken by Pier or Dock Anglers Using Hook-and-Line Gear.
Area 4, Quarter 4, 1982.

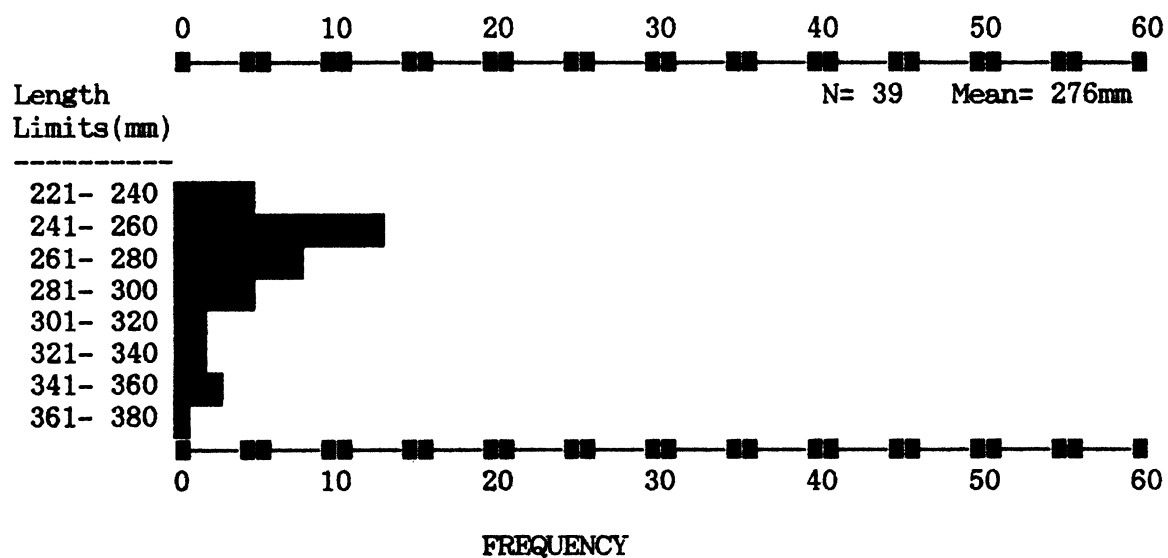


Figure 5. Length-Frequency Histogram for Blue Rockfish
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 4, Quarter 4, 1982.

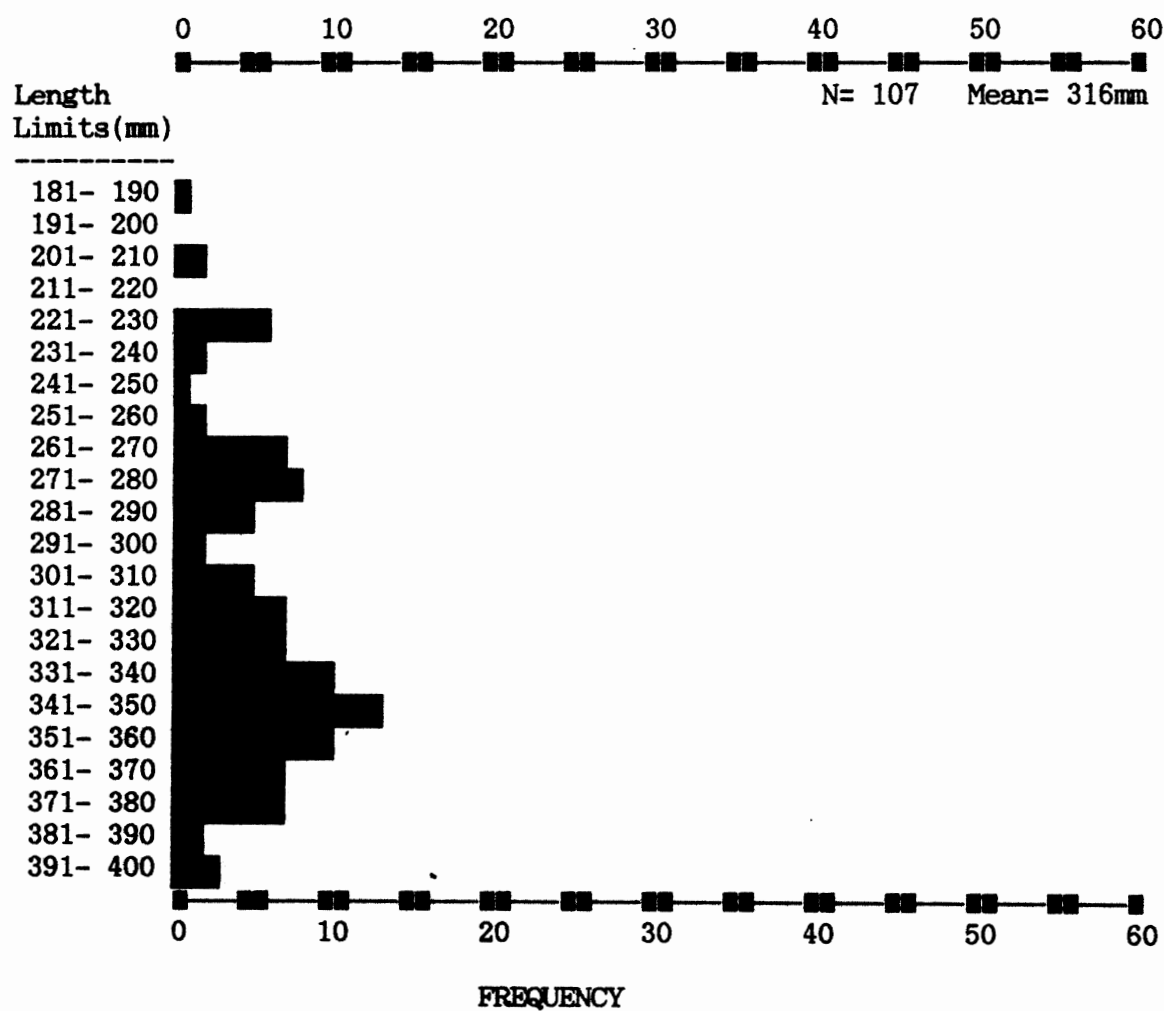


Figure 6. Length-Frequency Histogram for Blue Rockfish
 Taken by All CPFV Anglers Using Hook-and-Line Gear.
 Area 4, Quarter 4, 1982.

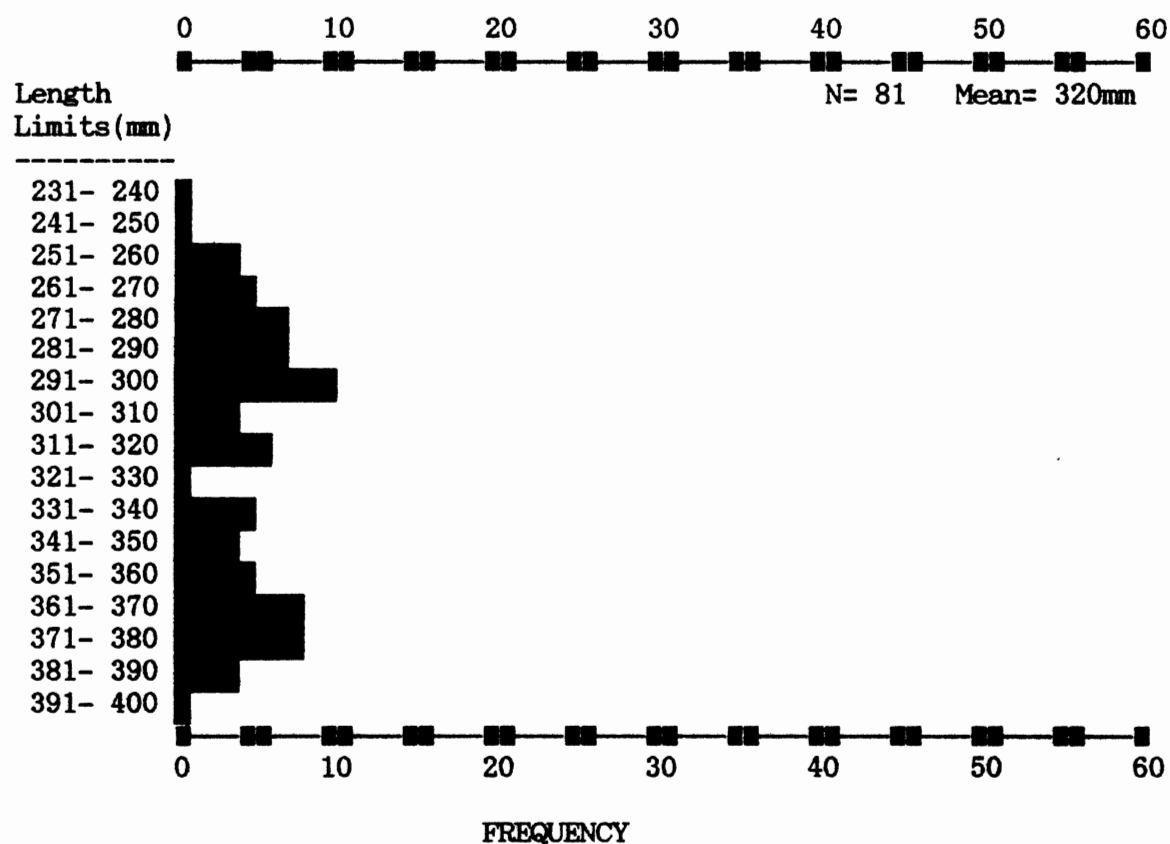


Figure 7. Length-Frequency Histogram for Yellowtail Rockfish
 Taken by All CPFV Anglers Using Hook-and-Line Gear.
 Area 4, Quarter 4, 1982.

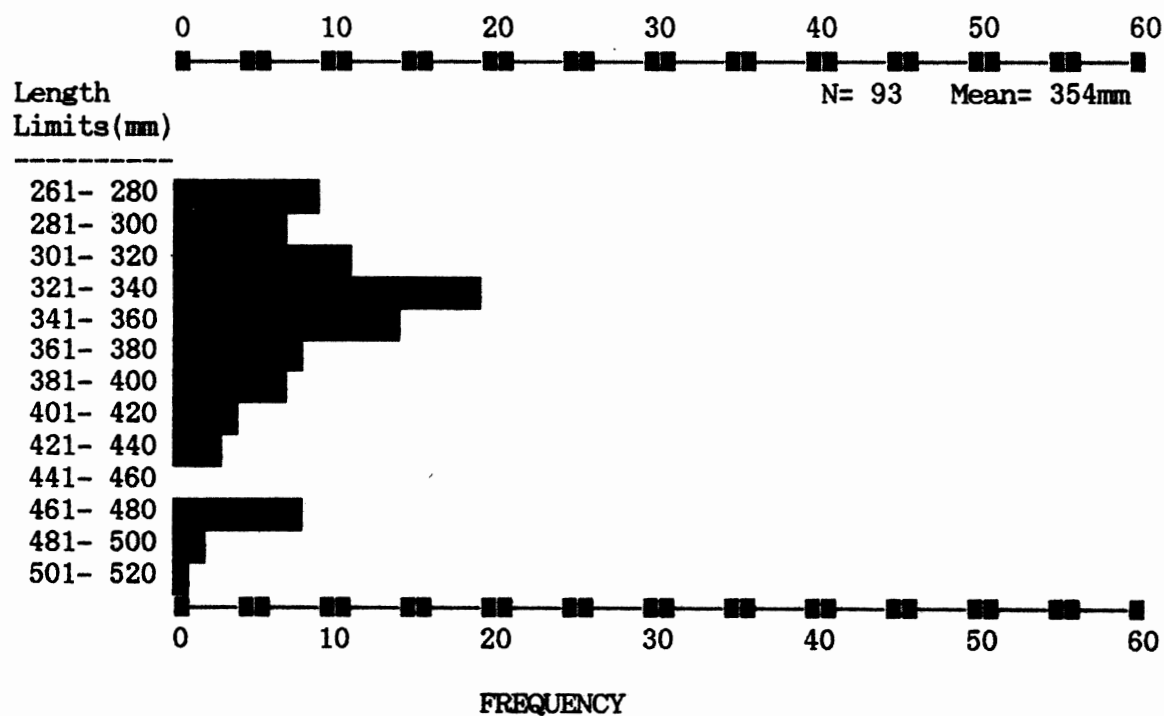


Table 85. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 89 |
| Total Hours Effort for Anglers Intercepted | = | 235.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 4.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Mackerel, Pacific (Chub) | 1 | 108 | 38.8 |
| Jacksmelt | 2 | 78 | 28.1 |
| Sculpin, Pacific Staghorn | 3 | 32 | 11.5 |
| Croaker, White | 4 | 23 | 8.3 |
| Surfperch, Barred | 5 | 21 | 7.6 |
| Surfperch, Walleye | 6 | 4 | 1.4 |
| Jack Mackerel | 7 | 3 | 1.1 |
| Topsmelt | 8 | 2 | 0.7 |
| Surfperch, Silver | 9 | 2 | 0.7 |
| Bonito, Pacific | 10 | 2 | 0.7 |
| Skates | 11 | 1 | 0.4 |
| Trout, Rainbow | 12 | 1 | 0.4 |
| Surfperches | 13 | 1 | 0.4 |
| Total | | 278 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 3.12 | Catch per Angler Hour | = | 1.18 |
|----------------------|---|------|-----------------------|---|------|

Table 86. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 89
 Total Hours Effort for Anglers Intercepted = 235.0
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Mackerel, Pacific (Chub) | 1 | 104 | 40.0 | 0.19 | 20.00 |
| Jacksmelt | 2 | 72 | 27.7 | 0.15 | 10.53 |
| Sculpin, Pacific Staghorn | 3 | 28 | 10.8 | 0.03 | 0.92 |
| Croaker, White | 4 | 22 | 8.5 | 0.16 | 3.47 |
| Surfperch, Barred | 5 | 21 | 8.1 | 0.19 | 3.97 |
| Surfperch, Walleye | 6 | 4 | 1.5 | 0.11 | 0.44 |
| Jack Mackerel | 7 | 3 | 1.2 | 0.21 | 0.62 |
| Surfperch, Silver | 8 | 2 | 0.8 | 0.06 | 0.12 |
| Bonito, Pacific | 9 | 2 | 0.8 | 2.37 | 4.73 |
| Trout, Rainbow | 10 | 1 | 0.4 | 0.51 | 0.51 |
| Topsmelt | 11 | 1 | 0.4 | 0.00** | 0.00 |
| Total | | 260 | 100 | | 45.31 |

C. CPUE

Catch per Angler Day = 2.92 Catch per Angler Hour = 1.11
 Kg per Angler Day = 0.51 Kg per Angler Hour = 0.19

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 87. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 89
 Total Hours Effort for Anglers Intercepted = 235.0
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|---------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Mackerel, Pacific (Chub) | 1 | 13.46 | 70 | 43.2 | 53 | 0.19 | 248 | 27 |
| Jacksmelt | 2 | 9.36 | 64 | 39.5 | 42 | 0.15 | 260 | 55 |
| Bonito, Pacific | 3 | 4.73 | 2 | 1.2 | 2 | 2.37 | 560 | 21 |
| Surfperch, Barred | 4 | 2.08 | 11 | 6.8 | 11 | 0.19 | 213 | 26 |
| Croaker, White | 5 | 0.79 | 5 | 3.1 | 5 | 0.16 | 232 | 56 |
| Jack Mackerel | 6 | 0.62 | 3 | 1.9 | 3 | 0.21 | 252 | 59 |
| Trout, Rainbow | 7 | 0.51 | 1 | 0.6 | 1 | 0.51 | 380 | 0 |
| Surfperch, Walleye | 8 | 0.44 | 4 | 2.5 | 4 | 0.11 | 188 | 29 |
| Surfperch, Silver | 9 | 0.06 | 1 | 0.6 | 1 | 0.06 | 160 | 0 |
| Sculpin, Pacific Staghorn | 10 | 0.03 | 1 | 0.6 | 1 | 0.03 | 145 | 0 |
| Total | | 32.08 | 162 | 100 | 123 | | | |

C. CPUE***

Catch per Angler Day = 1.82 Catch per Angler Hour = 0.69
 Kg per Angler Day = 0.36 Kg per Angler Hour = 0.14

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 88. Sampled Effort, Ranked Catch and CPUE for Area 5
in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using
Hook-and-Line Gear. Catch Represents All Fish Captured,
Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 7
Total Hours Effort for Anglers Intercepted = 18.0
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-------------------|-------------------|------------------|----------------|
| Jacksmelt | 1 | 8 | 50.0 |
| Surfperch, Barred | 2 | 3 | 18.8 |
| Greenling, Kelp | 3 | 1 | 6.3 |
| Cabezon | 4 | 1 | 6.3 |
| Perch, Pile | 5 | 1 | 6.3 |
| Seaperch, Rainbow | 6 | 1 | 6.3 |
| Flounder, Starry | 7 | 1 | 6.3 |
| Total | | 16 | 100 |

C. CPUE

Catch per Angler Day = 2.29 Catch per Angler Hour = 0.89

Table 89. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 7
 Total Hours Effort for Anglers Intercepted = 18.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-------------------|-------------------|------------------|----------------|-------------------|------------------|
| Jacksmelt | 1 | 8 | 50.0 | 0.29 | 2.32 |
| Surfperch, Barred | 2 | 3 | 18.8 | 0.40 | 1.19 |
| Greenling, Kelp | 3 | 1 | 6.3 | 0.36 | 0.36 |
| Cabazon | 4 | 1 | 6.3 | 0.62 | 0.62 |
| Perch, Pile | 5 | 1 | 6.3 | 0.74 | 0.74 |
| Seaperch, Rainbow | 6 | 1 | 6.3 | 0.00** | 0.00 |
| Flounder, Starry | 7 | 1 | 6.3 | 0.49 | 0.49 |
| Total | | 16 | 100 | | 5.72 |

C. CPUE

Catch per Angler Day = 2.29 Catch per Angler Hour = 0.89
 Kg per Angler Day = 0.82 Kg per Angler Hour = 0.32

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 90. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 7
 Total Hours Effort for Anglers Intercepted = 18.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Jacksmelt | 1 | 1.16 | 4 | 44.4 | 4 | 0.29 | 335 | 10 |
| Perch, Pile | 2 | 0.74 | 1 | 11.1 | 1 | 0.74 | 355 | 0 |
| Cabezon | 3 | 0.62 | 1 | 11.1 | 1 | 0.62 | 328 | 0 |
| Flounder, Starry | 4 | 0.49 | 1 | 11.1 | 1 | 0.49 | 345 | 0 |
| Surfperch, Barred | 5 | 0.40 | 1 | 11.1 | 1 | 0.40 | 275 | 0 |
| Greenling, Kelp | 6 | 0.36 | 1 | 11.1 | 1 | 0.36 | 294 | 0 |
| Total | | 3.76 | 9 | 100 | 9 | | | |

C. CPUE***

Catch per Angler Day = 1.29 Catch per Angler Hour = 0.50
 Kg per Angler Day = 0.54 Kg per Angler Hour = 0.21

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 91. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 27 |
| Total Hours Effort for Anglers Intercepted | = | 68.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 16.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Surfperch, Barred | 1 | 24 | 46.2 |
| Rockfish, Grass | 2 | 8 | 15.4 |
| Opaleye | 3 | 7 | 13.5 |
| Surfperch, Silver | 4 | 7 | 13.5 |
| Seaperch, Striped | 5 | 2 | 3.8 |
| Rockfishes (unidentified) | 6 | 1 | 1.9 |
| Greenling, Rock | 7 | 1 | 1.9 |
| Cabazon | 8 | 1 | 1.9 |
| Surfperches | 9 | 1 | 1.9 |
| Total | | 52 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|------|-----------------------|---|------|
| Catch per Angler Day | = | 1.93 | Catch per Angler Hour | = | 0.76 |
|----------------------|---|------|-----------------------|---|------|

Table 92. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 27
 Total Hours Effort for Anglers Intercepted = 68.0
 Total Hours Still to Fish (Incomplete Trips) = 16.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-------------------|-------------------|------------------|----------------|-------------------|------------------|
| Surfperch, Barred | 1 | 17 | 38.6 | 0.24 | 4.15 |
| Rockfish, Grass | 2 | 8 | 18.2 | 1.59 | 12.71 |
| Opaleye | 3 | 7 | 15.9 | 0.27 | 1.88 |
| Surfperch, Silver | 4 | 7 | 15.9 | 0.09 | 0.63 |
| Seaperch, Striped | 5 | 2 | 4.5 | 0.57 | 1.14 |
| Greenling, Rock | 6 | 1 | 2.3 | 0.53 | 0.53 |
| Cabazon | 7 | 1 | 2.3 | 1.94 | 1.94 |
| Surfperches | 8 | 1 | 2.3 | 0.23** | 0.23 |
| Total | | 44 | 100 | | 23.20 |

C. CPUE

Catch per Angler Day = 1.63 Catch per Angler Hour = 0.65
 Kg per Angler Day = 0.86 Kg per Angler Hour = 0.34

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 93. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 27
 Total Hours Effort for Anglers Intercepted = 68.0
 Total Hours Still to Fish (Incomplete Trips) = 16.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|-------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Grass | 1 | 7.94 | 5 | 12.8 | 5 | 1.59 | 396 | 69 |
| Surfperch, Barred | 2 | 4.15 | 17 | 43.6 | 17 | 0.24 | 232 | 30 |
| Cabazon | 3 | 1.94 | 1 | 2.6 | 1 | 1.94 | 500 | 0 |
| Opaleye | 4 | 1.61 | 6 | 15.4 | 6 | 0.27 | 241 | 13 |
| Seaperch, Striped | 5 | 1.14 | 2 | 5.1 | 2 | 0.57 | 327 | 11 |
| Surfperch, Silver | 6 | 0.63 | 7 | 17.9 | 7 | 0.09 | 177 | 26 |
| Greenling, Rock | 7 | 0.53 | 1 | 2.6 | 1 | 0.53 | 335 | 0 |
| Total | | 17.94 | 39 | 100 | 39 | | | |

C. CPUE***

Catch per Angler Day = 1.44 Catch per Angler Hour = 0.57
 Kg per Angler Day = 0.66 Kg per Angler Hour = 0.26

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 94. Sampled Effort, Ranked Catch and CPUE for Area 5
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents All Fish Captured,
Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|-------|
| Number Anglers Intercepted | = | 130 |
| Total Hours Effort for Anglers Intercepted | = | 499.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|-----------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 407 | 39.4 |
| Rockfish, Gopher | 2 | 111 | 10.7 |
| Rockfishes (unidentified) | 3 | 90 | 8.7 |
| Rockfish, Olive | 4 | 65 | 6.3 |
| Mackerel, Pacific (Chub) | 5 | 51 | 4.9 |
| Rockfish, Copper | 6 | 35 | 3.4 |
| Rockfish, Yellowtail | 7 | 35 | 3.4 |
| Bonito, Pacific | 8 | 33 | 3.2 |
| Rockfish, Brown | 9 | 32 | 3.1 |
| Rockfish, Canary | 10 | 25 | 2.4 |
| Lingcod | 11 | 21 | 2.0 |
| Rockfish, Black-and-yellow | 12 | 19 | 1.8 |
| Rockfish, Starry | 13 | 16 | 1.5 |
| Cabazon | 14 | 16 | 1.5 |
| Spiny Dogfish | 15 | 15 | 1.5 |
| Rockfish, Rosy | 16 | 15 | 1.5 |
| Rockfish, Vermilion | 17 | 14 | 1.4 |
| Rockfish, Greenspotted | 18 | 7 | 0.7 |
| Rockfish, Black | 19 | 4 | 0.4 |
| Rockfish, China | 20 | 4 | 0.4 |
| Halibut, California | 21 | 3 | 0.3 |
| Bocaccio | 22 | 2 | 0.2 |
| Greenling, Kelp | 23 | 2 | 0.2 |
| Croaker, White | 24 | 2 | 0.2 |
| Sanddab, Pacific | 25 | 2 | 0.2 |
| Bottomfishes (Groundfishes) | 26 | 1 | 0.1 |

(Table 94. - continued)

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------|-------------------|------------------|----------------|
| Jacksmelt | 27 | 1 | 0.1 |
| Rockfish, Kelp | 28 | 1 | 0.1 |
| Rockfish, Flag | 29 | 1 | 0.1 |
| Greenling, Rock | 30 | 1 | 0.1 |
| Flounders, Righteye | 31 | 1 | 0.1 |
| Flounder, Starry | 32 | 1 | 0.1 |
| Sunfish, Ocean | 33 | 1 | 0.1 |
| Total | | 1034 | 100 |

C. CPUE

Catch per Angler Day = 7.95 Catch per Angler Hour = 2.07

Table 95. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 130
 Total Hours Effort for Anglers Intercepted = 499.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|-----------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 406 | 39.4 | 0.51 | 207.29 |
| Rockfish, Gopher | 2 | 111 | 10.8 | 0.49 | 54.79 |
| Rockfishes (unidentified) | 3 | 89 | 8.6 | 0.59** | 52.51 |
| Rockfish, Olive | 4 | 65 | 6.3 | 0.75 | 48.56 |
| Mackerel, Pacific (Chub) | 5 | 51 | 4.9 | 0.47 | 23.94 |
| Rockfish, Copper | 6 | 35 | 3.4 | 0.97 | 33.86 |
| Rockfish, Yellowtail | 7 | 35 | 3.4 | 0.56 | 19.47 |
| Bonito, Pacific | 8 | 33 | 3.2 | 2.45 | 80.84 |
| Rockfish, Brown | 9 | 32 | 3.1 | 0.96 | 30.67 |
| Rockfish, Canary | 10 | 25 | 2.4 | 0.54 | 13.52 |
| Lingcod | 11 | 21 | 2.0 | 2.67 | 56.00 |
| Rockfish, Black-and-yellow | 12 | 19 | 1.8 | 0.46 | 8.77 |
| Rockfish, Starry | 13 | 16 | 1.6 | 0.65 | 10.41 |
| Cabezon | 14 | 16 | 1.6 | 1.83 | 29.28 |
| Spiny Dogfish | 15 | 15 | 1.5 | 0.75 | 11.26 |
| Rockfish, Rosy | 16 | 15 | 1.5 | 0.24 | 3.66 |
| Rockfish, Vermilion | 17 | 14 | 1.4 | 1.76 | 24.58 |
| Rockfish, Greenspotted | 18 | 7 | 0.7 | 0.64 | 4.48 |
| Rockfish, Black | 19 | 4 | 0.4 | 0.52 | 2.07 |
| Rockfish, China | 20 | 4 | 0.4 | 0.55 | 2.22 |
| Halibut, California | 21 | 3 | 0.3 | 2.90 | 8.71 |
| Bocaccio | 22 | 2 | 0.2 | 0.45 | 0.91 |
| Greenling, Kelp | 23 | 2 | 0.2 | 0.67 | 1.35 |
| Croaker, White | 24 | 2 | 0.2 | 0.41 | 0.82 |
| Sanddab, Pacific | 25 | 2 | 0.2 | 0.13 | 0.25 |
| Bottomfishes (Groundfishes) | 26 | 1 | 0.1 | 0.00** | 0.00 |
| Jacksmelt | 27 | 1 | 0.1 | 0.46 | 0.46 |

(Table 95. - continued)

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Kelp | 28 | 1 | 0.1 | 0.47 | 0.47 |
| Rockfish, Flag | 29 | 1 | 0.1 | 0.72 | 0.72 |
| Greenling, Rock | 30 | 1 | 0.1 | 0.79 | 0.79 |
| Flounder, Starry | 31 | 1 | 0.1 | 0.93 | 0.93 |
| Sunfish, Ocean | 32 | 1 | 0.1 | 0.00** | 0.00 |
| Total | | 1031 | 100 | | 733.56 |

C. CPUE

Catch per Angler Day = 7.93 Catch per Angler Hour = 2.07
 Kg per Angler Day = 5.64 Kg per Angler Hour = 1.47

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 96. Sampled Effort, Ranked Catch and CPUE for Area 5
in 1982 for Quarter 4, by Private or Rental Boat Anglers Using
Hook-and-Line Gear. Catch Represents Only the Fish
Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 130
Total Hours Effort for Anglers Intercepted = 499.0
Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|----------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Blue | 1 | 190.95 | 374 | 41.6 | 244 | 0.51 | 318 | 39 |
| Bonito, Pacific | 2 | 73.49 | 30 | 3.3 | 26 | 2.45 | 558 | 68 |
| Lingcod | 3 | 56.00 | 21 | 2.3 | 21 | 2.67 | 617 | 76 |
| Rockfish, Gopher | 4 | 52.82 | 107 | 11.9 | 101 | 0.49 | 293 | 26 |
| Rockfish, Olive | 5 | 44.08 | 59 | 6.6 | 50 | 0.75 | 376 | 59 |
| Rockfish, Copper | 6 | 33.86 | 35 | 3.9 | 35 | 0.97 | 357 | 82 |
| Rockfish, Brown | 7 | 30.67 | 32 | 3.6 | 28 | 0.96 | 367 | 69 |
| Cabezon | 8 | 25.62 | 14 | 1.6 | 12 | 1.83 | 482 | 69 |
| Rockfish, Vermilion | 9 | 24.58 | 14 | 1.6 | 14 | 1.76 | 472 | 62 |
| Mackerel, Pacific (Chub) | 10 | 23.47 | 50 | 5.6 | 42 | 0.47 | 322 | 40 |
| Rockfish, Yellowtail | 11 | 19.47 | 35 | 3.9 | 34 | 0.56 | 324 | 66 |
| Rockfish, Canary | 12 | 13.52 | 25 | 2.8 | 25 | 0.54 | 330 | 36 |
| Spiny Dogfish | 13 | 10.51 | 14 | 1.6 | 14 | 0.75 | 490 | 272 |
| Rockfish, Starry | 14 | 10.41 | 16 | 1.8 | 16 | 0.65 | 337 | 31 |
| Rockfish, Black-and-yellow | 15 | 8.77 | 19 | 2.1 | 17 | 0.46 | 288 | 19 |
| Halibut, California | 16 | 8.71 | 3 | 0.3 | 3 | 2.90 | 648 | 55 |
| Rockfish, Greenspotted | 17 | 4.48 | 7 | 0.8 | 7 | 0.64 | 341 | 20 |
| Rockfish, Rosy | 18 | 3.66 | 15 | 1.7 | 14 | 0.24 | 246 | 11 |
| Rockfish, China | 19 | 2.22 | 4 | 0.4 | 4 | 0.55 | 311 | 22 |
| Rockfish, Black | 20 | 2.07 | 4 | 0.4 | 4 | 0.52 | 318 | 56 |
| Greenling, Kelp | 21 | 1.35 | 2 | 0.2 | 2 | 0.67 | 365 | 6 |
| Flounder, Starry | 22 | 0.93 | 1 | 0.1 | 1 | 0.93 | 419 | 0 |
| Bocaccio | 23 | 0.91 | 2 | 0.2 | 2 | 0.45 | 349 | 65 |
| Croaker, White | 24 | 0.82 | 2 | 0.2 | 2 | 0.41 | 329 | 9 |
| Greenling, Rock | 25 | 0.79 | 1 | 0.1 | 1 | 0.79 | 385 | 0 |
| Rockfish, Flag | 26 | 0.72 | 1 | 0.1 | 1 | 0.72 | 350 | 0 |

(Table 96. - continued)

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|---------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Kelp | 27 | 0.47 | 1 | 0.1 | 1 | 0.47 | 316 | 0 |
| Jacksmelt | 28 | 0.46 | 1 | 0.1 | 1 | 0.46 | 385 | 0 |
| Sanddab, Pacific | 29 | 0.25 | 2 | 0.2 | 2 | 0.13 | 228 | 2 |
| Rockfishes (unidentified) | 30 | 0.00 | 7 | 0.8 | 0 | 0.00 | 0 | 0 |
| Sunfish, Ocean | 31 | 0.00 | 1 | 0.1 | 1 | 0.00 | 483 | 0 |
| Total | | 646.03 | 899 | 100 | 725 | | | |

C. CPUE***

Catch per Angler Day = 6.92 Catch per Angler Hour = 1.80
 Kg per Angler Day = 4.97 Kg per Angler Hour = 1.29

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Table 97. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 11 |
| Total Hours Effort for Anglers Intercepted | = | 24.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number |
|---------------------------|-------------------|------------------|----------------|
| Rockfish, Blue | 1 | 55 | 33.1 |
| Mackerel, Pacific (Chub) | 2 | 42 | 25.3 |
| Rockfishes (unidentified) | 3 | 27 | 16.3 |
| Rockfish, Yellowtail | 4 | 20 | 12.0 |
| Rockfish, Starry | 5 | 7 | 4.2 |
| Rockfish, Rosy | 6 | 6 | 3.6 |
| Rockfish, Widow | 7 | 3 | 1.8 |
| Rockfish, Vermilion | 8 | 2 | 1.2 |
| Rockfish, Yelloweye | 9 | 1 | 0.6 |
| Rockfish, Greenspotted | 10 | 1 | 0.6 |
| Rockfish, Squarespot | 11 | 1 | 0.6 |
| Rockfish, Flag | 12 | 1 | 0.6 |
| Total | | 166 | 100 |

C. CPUE

| | | | | | |
|----------------------|---|-------|-----------------------|---|------|
| Catch per Angler Day | = | 15.09 | Catch per Angler Hour | = | 6.92 |
|----------------------|---|-------|-----------------------|---|------|

Table 98. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

| | | |
|--|---|------|
| Number Anglers Intercepted | = | 11 |
| Total Hours Effort for Anglers Intercepted | = | 24.0 |
| Total Hours Still to Fish (Incomplete Trips) | = | 0.0 |

B. Ranked Catch

| Common name | Rank by Number | Number Caught | % by Number | Mean Wt. (kg)* | Weight Caught |
|---------------------------|-------------------|------------------|----------------|-------------------|------------------|
| Rockfish, Blue | 1 | 55 | 37.4 | 0.49 | 26.75 |
| Rockfishes (unidentified) | 2 | 26 | 17.7 | 0.55** | 14.30 |
| Mackerel, Pacific (Chub) | 3 | 24 | 16.3 | 0.59 | 14.14 |
| Rockfish, Yellowtail | 4 | 20 | 13.6 | 0.58 | 11.59 |
| Rockfish, Starry | 5 | 7 | 4.8 | 0.66 | 4.59 |
| Rockfish, Rosy | 6 | 6 | 4.1 | 0.25 | 1.50 |
| Rockfish, Widow | 7 | 3 | 2.0 | 0.75 | 2.26 |
| Rockfish, Vermilion | 8 | 2 | 1.4 | 2.22 | 4.44 |
| Rockfish, Yelloweye | 9 | 1 | 0.7 | 0.67 | 0.67 |
| Rockfish, Greenspotted | 10 | 1 | 0.7 | 0.76 | 0.76 |
| Rockfish, Squarespot | 11 | 1 | 0.7 | 0.18 | 0.18 |
| Rockfish, Flag | 12 | 1 | 0.7 | 1.04 | 1.04 |
| Total | | 147 | 100 | | 82.21 |

C. CPUE

| | | | | | |
|----------------------|---|-------|-----------------------|---|------|
| Catch per Angler Day | = | 13.36 | Catch per Angler Hour | = | 6.13 |
| Kg per Angler Day | = | 7.47 | Kg per Angler Hour | = | 3.43 |

* Weight estimated from length-to-weight regression if available.

** Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 99. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 4, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 11
 Total Hours Effort for Anglers Intercepted = 24.0
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

| Common name | Rank by Wt. | Weight* Caught | Number Caught | % by No. | No. Meas. | ---Mean--- | | SD LN. |
|--------------------------|----------------|-------------------|------------------|-------------|--------------|--------------|---------------|-----------|
| | | | | | | Wt.* (kg) | Ln.** (mm) | |
| Rockfish, Blue | 1 | 25.78 | 53 | 47.7 | 52 | 0.49 | 314 | 34 |
| Rockfish, Yellowtail | 2 | 11.59 | 20 | 18.0 | 19 | 0.58 | 331 | 65 |
| Mackerel, Pacific (Chub) | 3 | 9.43 | 16 | 14.4 | 16 | 0.59 | 350 | 10 |
| Rockfish, Starry | 4 | 4.59 | 7 | 6.3 | 7 | 0.66 | 338 | 34 |
| Rockfish, Vermilion | 5 | 4.44 | 2 | 1.8 | 2 | 2.22 | 518 | 33 |
| Rockfish, Widow | 6 | 2.26 | 3 | 2.7 | 3 | 0.75 | 384 | 21 |
| Rockfish, Rosy | 7 | 1.50 | 6 | 5.4 | 6 | 0.25 | 247 | 19 |
| Rockfish, Flag | 8 | 1.04 | 1 | 0.9 | 1 | 1.04 | 396 | 0 |
| Rockfish, Greenspotted | 9 | 0.76 | 1 | 0.9 | 1 | 0.76 | 362 | 0 |
| Rockfish, Yelloweye | 10 | 0.67 | 1 | 0.9 | 1 | 0.67 | 332 | 0 |
| Rockfish, Squarespot | 11 | 0.18 | 1 | 0.9 | 1 | 0.18 | 241 | 0 |
| Total | | 62.22 | 111 | 100 | 109 | | | |

C. CPUE***

Catch per Angler Day = 10.09 Catch per Angler Hour = 4.63
 Kg per Angler Day = 5.66 Kg per Angler Hour = 2.59

* Weight estimated from length-to-weight regression if available.

** Total length except for species with tuna-like caudal fins (see text).

*** CPUE is underestimated if all fish taken were not examined (see text).

Figure 8. Length-Frequency Histogram for Pacific (Chub) Mackerel
Taken by Pier or Dock Anglers Using Hook-and-Line Gear.
Area 5, Quarter 4, 1982.

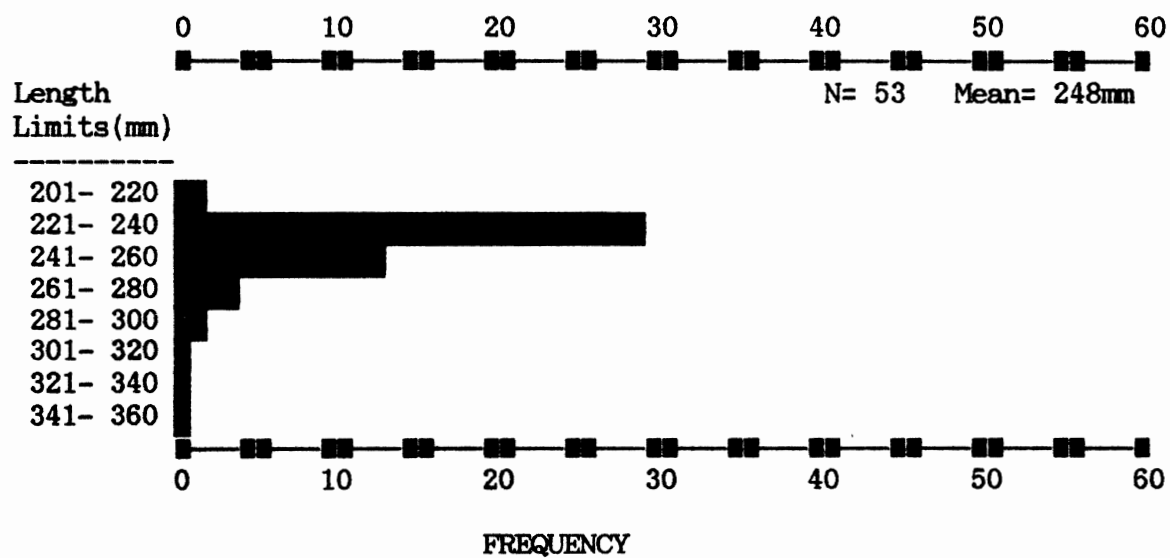


Figure 9. Length-Frequency Histogram for Pacific (Chub) Mackerel
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 5, Quarter 4, 1982.

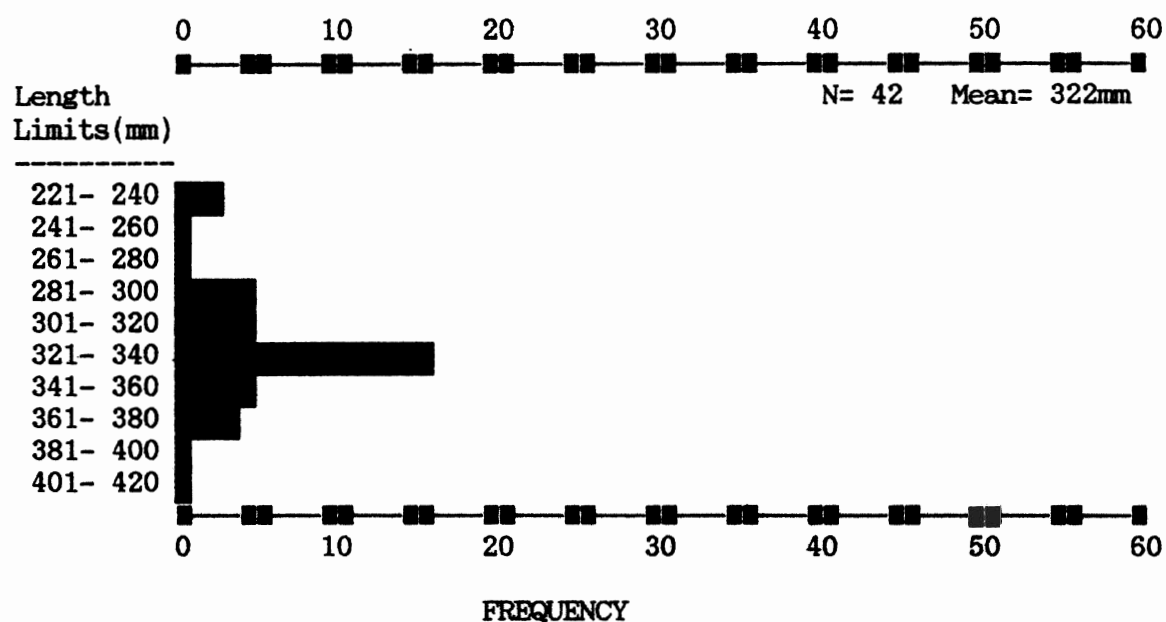


Figure 10. Length-Frequency Histogram for Blue Rockfish
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 5, Quarter 4, 1982.

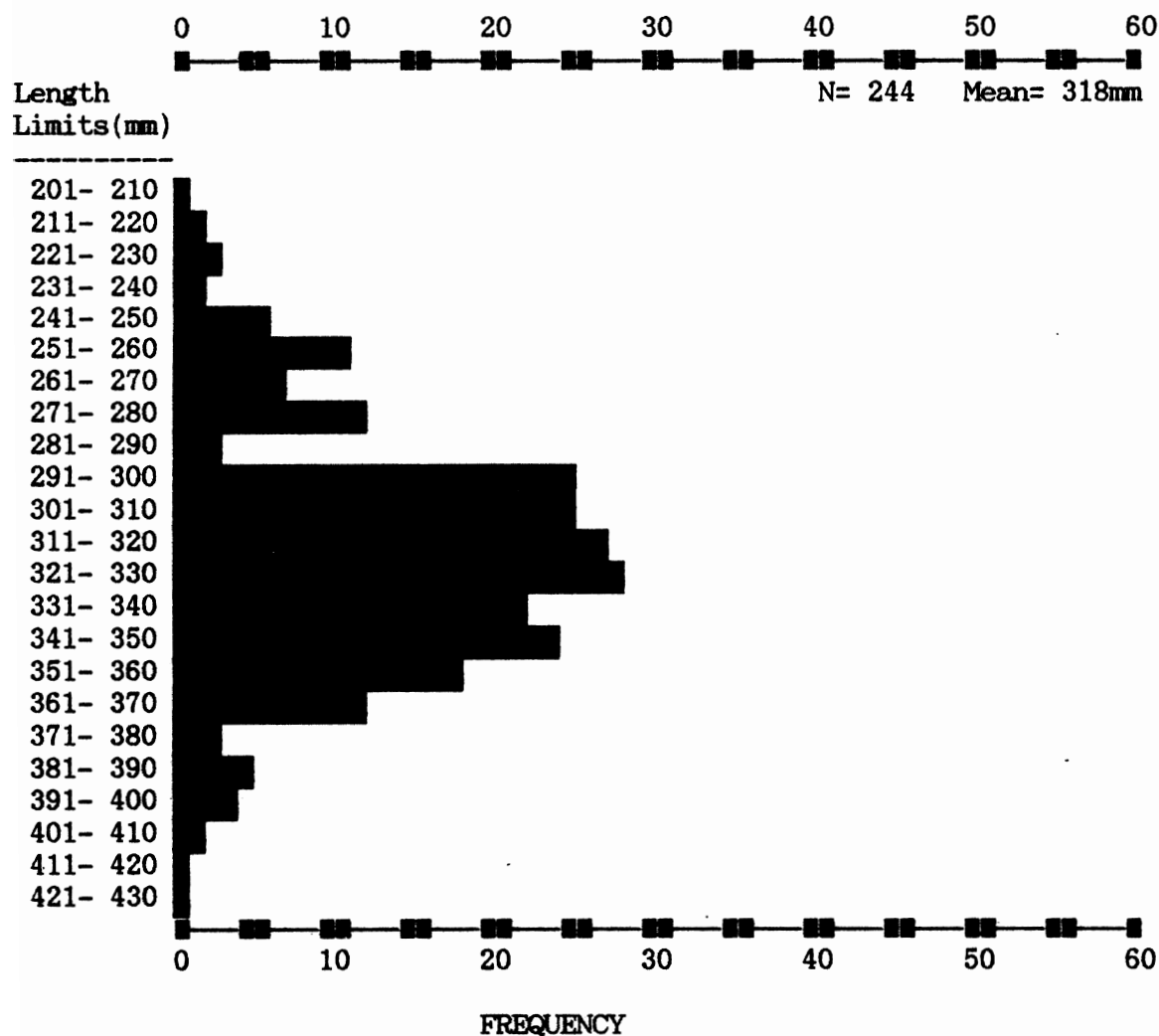


Figure 11. Length-Frequency Histogram for Gopher Rockfish
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.
 Area 5, Quarter 4, 1982.

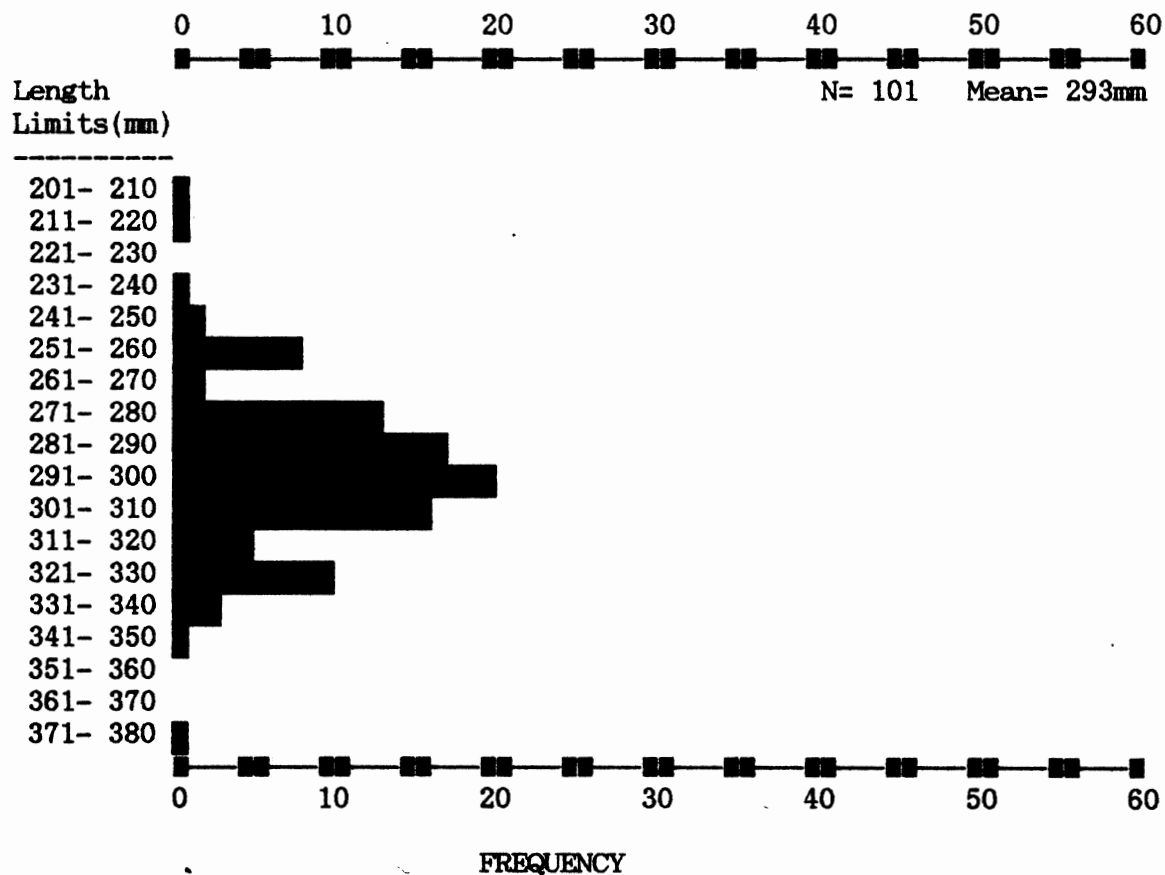
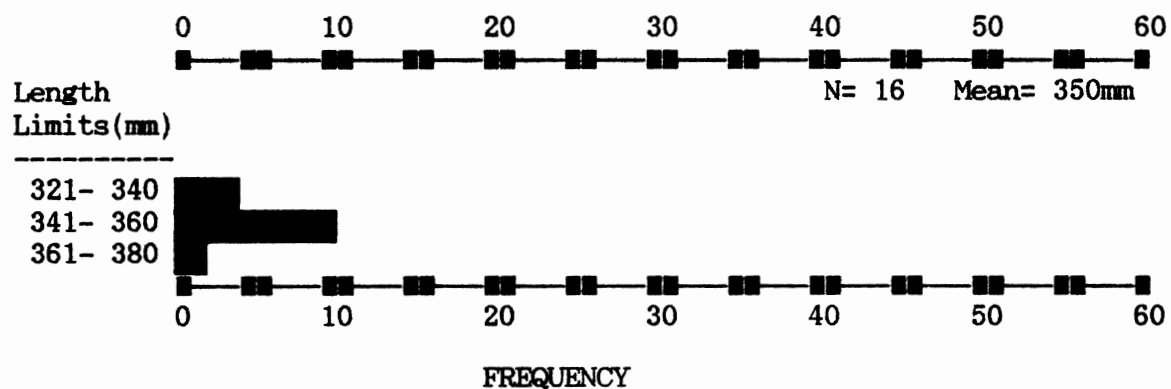


Figure 12. Length-Frequency Histogram for Pacific (Chub) Mackerel
Taken by All CPFV Anglers Using Hook-and-Line Gear.
Area 5, Quarter 4, 1982.



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APPENDIX A

Pages 122 to 231 are on the attached microfiche on inside of back cover.

Appendix B. List of Common Names, Scientific Names, and Length-Weight Parameters from All Areas in 1982 for Quarter 4, Taken by All Mode Anglers Using All Types of Gear.

| Common Name | Scientific Name | a | b |
|-----------------------------|------------------------------------|---------------|---------|
| Goby, Yellowfin | <u>Acanthogobius flavimanus</u> | 0.00001360000 | 2.89000 |
| Sturgeon, White | <u>Acipenser transmontanus</u> | 0.00000053086 | 3.34800 |
| Sturgeons (unidentified) | Acipenseridae | | |
| Surfperch, Barred | <u>Amphistichus argenteus</u> | 0.00001070000 | 3.10250 |
| Surfperch, Calico | <u>Amphistichus koelzi</u> | 0.00000469894 | 3.22700 |
| Surfperch, Redtail | <u>Amphistichus rhodoterus</u> | 0.00000469894 | 3.22700 |
| Wolf-eel | <u>Anarrhichthys ocellatus</u> | 0.00000502500 | 3.09100 |
| Topsmelt | <u>Atherinops affinis</u> | 0.00005566000 | 2.59000 |
| Jacksmelt | <u>Atherinopsis californiensis</u> | 0.00000098820 | 3.35360 |
| Seabass, White | <u>Atractoscion nobilis</u> | 0.00001549000 | 2.92167 |
| Flounders, Lefteye | Bothidae | | |
| Bottomfishes (Groundfishes) | Bottom Pisces (Groundfishes) | | |
| Sharks | Chondrichthyes | | |
| Sanddab, Pacific | <u>Citharichthys sordidus</u> | 0.00000142860 | 3.37080 |
| Sandabs | <u>Citharichthys</u> spp. | | |
| Sanddab, Speckled | <u>Citharichthys stigmaeus</u> | 0.00000266000 | 3.29530 |
| Sculpins | Cottidae | | |
| Perch, Shiner | <u>Cymatogaster aggregata</u> | 0.00000473500 | 3.21000 |
| Stingrays | Dasyatidae | | |
| Perch, Black | <u>Embiotoca jacksoni</u> | 0.00029100000 | 2.49640 |
| Seaperch, Striped | <u>Embiotoca lateralis</u> | 0.00001540000 | 3.01000 |
| Surfperches | Embiotocidae | | |
| Sculpin, Buffalo | <u>Enophrys bison</u> | 0.00001790000 | 2.89600 |
| Sole, Petrale | <u>Eopsetta jordani</u> | 0.00000305800 | 3.23950 |
| Croaker, White | <u>Geryonemus lineatus</u> | 0.00000708500 | 3.08328 |
| Opaleye | <u>Girella nigricans</u> | 0.00001448300 | 3.04927 |
| Gobies | Gobiidae | | |
| Greenlings (unidentified) | Hexagrammidae | | |
| Greenling, Kelp | <u>Hexagrammos decagrammus</u> | 0.00002604300 | 2.89280 |
| Greenling, Rock | <u>Hexagrammos lagocephalus</u> | 0.00002604300 | 2.89280 |
| Surfperch, Walleye | <u>Hyperprosopon argenteum</u> | 0.00000035580 | 3.71700 |
| Surfperch, Silver | <u>Hyperprosopon ellipticum</u> | 0.00000469894 | 3.22700 |
| Smelt, Surf | <u>Hypomesus pretiosus</u> | 0.00000086900 | 3.38600 |
| Seaperch, Rainbow | <u>Hypsurus caryi</u> | 0.00001535000 | 3.00700 |
| Sole, Rock | <u>Lepidopsetta bilineata</u> | 0.00000760300 | 3.09570 |
| Sculpin, Pacific Staghorn | <u>Leptocottus armatus</u> | 0.00001790000 | 2.89600 |
| Sunfish, Ocean | <u>Mola mola</u> | 0.00000000000 | 0.00000 |
| Bass, Striped | <u>Morone saxatilis</u> | 0.00001068210 | 2.90671 |
| Smoothhound, Brown | <u>Mustelus henlei</u> | 0.00002089000 | 2.88000 |
| Shark, Sevengill | <u>Notorynchus maculatus</u> | 0.00000070600 | 3.49000 |
| Salmon | <u>Oncorhynchus</u> spp. | 0.00000944000 | 3.00000 |
| Salmon, Chinook (King) | <u>Oncorhynchus tshawytscha</u> | 0.00000944000 | 3.00000 |
| Lingcod | <u>Ophiodon elongatus</u> | 0.00001157000 | 2.99000 |
| Sand & Kelp Basses | <u>Paralabrax</u> spp. | | |
| Halibut, California | <u>Paralichthys californicus</u> | 0.00000849000 | 3.03300 |
| Seaperch, White | <u>Phanerodon furcatus</u> | 0.00001366000 | 2.97800 |
| Flounder, Starry | <u>Platichthys stellatus</u> | 0.00000163000 | 3.34000 |
| Flounders, Righteye | Pleuronectidae | | |

APPENDIX B (continued)

| Common Name | Scientific Name | a | b |
|----------------------------|-----------------------------------|---------------|---------|
| Sole, Sand | <u>Psettichthys melanostictus</u> | 0.00000277100 | 3.26480 |
| Skates | <u>Rajidae</u> | | |
| Seaperch, Rubberlip | <u>Rhacochilus toxotes</u> | 0.00003220500 | 2.90840 |
| Perch, Pile | <u>Rhacochilus vacca</u> | 0.00000925500 | 3.09900 |
| Trout, Rainbow | <u>Salmo gairdnerii</u> | 0.00000637000 | 3.06300 |
| Bonito, Pacific | <u>Sarda chiliensis</u> | 0.00000762700 | 3.08960 |
| Mackerel, Pacific (Chub) | <u>Scomber japonicus</u> | 0.00000136600 | 3.39360 |
| Mackerels and Tunas | <u>Scombridae</u> | | |
| Cabezon | <u>Scorpaenichthys marmoratus</u> | 0.00008823220 | 2.72030 |
| Rockfishes (unidentified) | <u>Scorpaenidae</u> | | |
| Rockfish, Kelp | <u>Sebastes atrovirens</u> | 0.00003277410 | 2.86200 |
| Rockfish, Brown | <u>Sebastes auriculatus</u> | 0.00002601290 | 2.93360 |
| Rockfish, Gopher | <u>Sebastes carnatus</u> | 0.00002047310 | 2.95730 |
| Rockfish, Copper | <u>Sebastes caurinus</u> | 0.00001648140 | 3.01800 |
| Rockfish, Greenspotted | <u>Sebastes chlorostictus</u> | 0.00002047310 | 2.95730 |
| Rockfish, Black-and-yellow | <u>Sebastes chrysomelas</u> | 0.00000446010 | 3.25650 |
| Rockfish, Starry | <u>Sebastes constellatus</u> | 0.00000531230 | 3.19500 |
| Rockfish, Widow | <u>Sebastes entomelas</u> | 0.00000291200 | 3.25430 |
| Rockfish, Yellowtail | <u>Sebastes flavidus</u> | 0.00001130400 | 3.04020 |
| Rockfish, Rosethorn | <u>Sebastes helvomaculatus</u> | 0.00001678550 | 2.99430 |
| Rockfish, Squarespot | <u>Sebastes hopkinsi</u> | 0.00000324000 | 3.25050 |
| Rockfish, Quillback | <u>Sebastes maliger</u> | 0.00003000000 | 2.93000 |
| Rockfish, Black | <u>Sebastes melanops</u> | 0.00001965710 | 2.95480 |
| Rockfish, Vermilion | <u>Sebastes miniatus</u> | 0.00002677000 | 2.91650 |
| Rockfish, Blue | <u>Sebastes mystinus</u> | 0.00001624670 | 2.98849 |
| Rockfish, China | <u>Sebastes nebulosus</u> | 0.00000564040 | 3.20470 |
| Rockfish, Speckled | <u>Sebastes ovalis</u> | 0.00000324000 | 3.25050 |
| Bocaccio | <u>Sebastes paucispinis</u> | 0.00000583320 | 3.09410 |
| Rockfish, Canary | <u>Sebastes pinniger</u> | 0.00001051000 | 3.05560 |
| Rockfish, Grass | <u>Sebastes rastrelliger</u> | 0.00000575900 | 3.23500 |
| Rockfish, Rosy | <u>Sebastes rosaceus</u> | 0.00001678900 | 2.99430 |
| Rockfish, Yelloweye | <u>Sebastes ruberrimus</u> | 0.00001304370 | 3.05710 |
| Rockfish, Flag | <u>Sebastes rubrivinctus</u> | 0.00002346750 | 2.94310 |
| Rockfish, Olive | <u>Sebastes serranoides</u> | 0.00000521020 | 3.15410 |
| Thornyheads (general) | <u>Sebastolobus spp.</u> | | |
| Spiny Dogfish | <u>Squalus acanthias</u> | 0.00000189000 | 3.09000 |
| Pricklebacks | <u>Stichaeidae</u> | | |
| Jack Mackerel | <u>Trachurus symmetricus</u> | 0.00000331000 | 3.22320 |
| Shark, Leopard | <u>Triakis semifasciata</u> | 0.00002089000 | 2.88000 |
| Unidentified Fishes | <u>Unidentified Pisces</u> | | |
| Belpouts | <u>Zoarcidae</u> | | |

Appendix C. List of Common and Scientific Names for Fish from Areas
097 and 3 in 1982 for Quarter 4 Corrected from Fork to
Total Length Using Linear Regressions from Echeverria and
Lenarz (1984), Karpov (In Press), and Van Hyning (1951).

| Common Name | Scientific Name |
|---------------------------|------------------------------------|
| Sturgeon, White | <u>Acipenser transmontanus</u> |
| Sturgeons (unidentified) | Acipenseridae |
| Surfperch, Barred | <u>Amphistichus argenteus</u> |
| Surfperch, Redtail | <u>Amphistichus rhodoterus</u> |
| Jacksmelt | <u>Atherinopsis californiensis</u> |
| Perch, Shiner | <u>Cymatogaster aggregata</u> |
| Perch, Black | <u>Embiotoca jacksoni</u> |
| Seaperch, Striped | <u>Embiotoca lateralis</u> |
| Croaker, White | <u>Genyonemus lineatus</u> |
| Greenling, Kelp | <u>Hexagrammos decagrammus</u> |
| Greenling, Rock | <u>Hexagrammos lagocephalus</u> |
| Surfperch, Walleye | <u>Hyperprosopon argenteum</u> |
| Surfperch, Silver | <u>Hyperprosopon ellipticum</u> |
| Seaperch, Rainbow | <u>Hypsurus caryi</u> |
| Sculpin, Pacific Staghorn | <u>Leptocottus armatus</u> |
| Bass, Striped | <u>Morone saxatilis</u> |
| Salmon, Chinook (King) | <u>Oncorhynchus tshawytscha</u> |
| Lingcod | <u>Ophiodon elongatus</u> |
| Sand & Kelp Basses | <u>Paralabrax</u> spp. |
| Seaperch, White | <u>Phanerodon furcatus</u> |
| Seaperch, Rubberlip | <u>Rhacochilus toxotes</u> |
| Perch, Pile | <u>Rhacochilus vacca</u> |
| Rockfish, Brown | <u>Sebastes auriculatus</u> |
| Rockfish, Gopher | <u>Sebastes carnatus</u> |
| Rockfish, Copper | <u>Sebastes caurinus</u> |
| Rockfish, Greenspotted | <u>Sebastes chlorostictus</u> |
| Rockfish, Starry | <u>Sebastes constellatus</u> |
| Rockfish, Widow | <u>Sebastes entomelas</u> |
| Rockfish, Yellowtail | <u>Sebastes flavidus</u> |
| Rockfish, Quillback | <u>Sebastes maliger</u> |
| Rockfish, Black | <u>Sebastes melanops</u> |
| Rockfish, Vermilion | <u>Sebastes miniatus</u> |
| Rockfish, Blue | <u>Sebastes mystinus</u> |
| Rockfish, China | <u>Sebastes nebulosus</u> |
| Bocaccio | <u>Sebastes paucispinis</u> |
| Rockfish, Canary | <u>Sebastes pinniger</u> |
| Rockfish, Rosy | <u>Sebastes rosaceus</u> |
| Rockfish, Yelloweye | <u>Sebastes ruberrimus</u> |
| Rockfish, Olive | <u>Sebastes serranoides</u> |